

# BYZANTINE MUSIC in Theory and in Practice

by Prof. SAVAS I. SAVAS

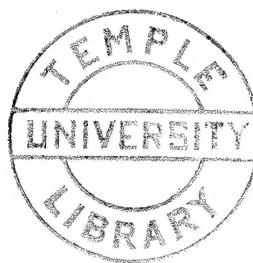
BYZANTINE MUSIC  
in Theory and in Practice  
by

Savas I. Savas

*Prof. of Byzantine Music at Holy Cross  
Greek Orthodox Theological School,  
Brookline, Massachusetts.*

*The contents of this book were written  
by the author and translated by  
Nicholas Dufault.*

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## PROLOGUE

The present publication of the *Theory and Practice of Byzantine Music* by the professor of this music in the Greek Orthodox Theological School of Brookline, Mr. Savas Savas, can now be added to analogous publications of the past which seek to codify this tradition which developed in the period following the fall of Constantinople. It appears at a time in which, generally speaking, Byzantine studies have become very popular both in Europe and the United States. The problems of the history and art of the Byzantine period are currently being studied in our great institutes and universities, especially now that old prejudices about Byzantium have been abandoned, and the importance of Byzantine civilization has come to be realized.

It follows therefore, that until such time as original studies can be made as a result of the careful examination and evaluation of the various elements of this civilization, the publication of studies which seek to shed new light on what traditions has already preserved for us shall continue to be most necessary. For in this way, scholars will learn the most recent developments in this field, and thus go on, with new insights and deeper understanding, to ever more fruitful study.

This has already happened in our days with the numerous frescoes and free-standing icons of the Byzantine period which are currently being reproduced so assiduously. In spite of the dangers of formalism and the dry repetition of the achievements of the past inherent in such practices, they are still considered necessary, since before the creation of a new Orthodox and (through the blending of the Byzantine tradition and similar elements of our modern art forms) these reproductions serve to acquaint, if nothing else, the majority of people with at least the "forms" of the various periods of Byzantine sacred art.

In exactly this same way, the methods of learning both on the theoretical and practical plane, the music of the Byzantine tradition which is chanted today in the Greek Orthodox Church, are considered to be a necessary prerequisite for those who wish to understand how the melodies and music of the Byzantine period were preserved by an ancient Church. As a matter of fact, the publication of a manual written in an international language such as English will be warmly welcomed by all friends of Byzantine music, both here in America and throughout Europe.

The present book was written to serve this purpose. Compiled by Mr. Savas (who knows Byzantine music very well both in theory and in practice, having taught and chanted it for many years), it is characterized by its simplicity, clarity of expression, and systematic presentation of material. Through the use of examples , effectively placed, the author makes the difficult theory of Byzantine music easily understood. Having considered the fact that the reading public is acquainted only with European musical notation, Mr. Savas relates this notation with the scales of Byzantine music and transposes the melodies of the latter into the notation of the former. In this way he aids his reader in the normally difficult task of understanding the principal of Byzantine musical theory.

I have no doubt whatever that this present edition by Mr. Savas will prove to be more generally significant in its scope in as much as it will contribute to the knowledge of Byzantine music whose study reflects, in a wider context, the general scholarly enthusiasm for deeper understanding of the forms of all Byzantine art.

Constantine Kalokyris

*Professor of Byzantine  
Archeology and Art,  
University of Salonika,  
Greece.*

## INTRODUCTION

The purpose of this present work is to bring forth in the most explicit and easy manner the music, which from very ancient times the Orthodox Church used in order to praise the Holy Name of God.

The ecclesiastical music, which, due to its cultivation and development in Byzantium, was called Byzantine, brings forth, in fact, a very fine and very majestic interweaving of tones, for it follows faithfully the magnificent content of the Orthodox Church hymnology.

The didactic, edifying, historic, and encomiastic content of these hymns, before which the entire critic world stands with amazement, was not able to be translated effectively, only with the wealth of harmony and the profoundity of sentiment, which distinguishes Byzantine Ecclesiastical Music.

Because of this, the following work will concern itself, exclusively, with the theoretical and practical forms of Byzantine Ecclesiastical Music. The historical journey of the present subject will appear in a separate volume in coalition with the analogous journey of the orthodox hymnology.

Showing, therefore, first the more important aspect of this music, we believe that we will lead the reader more easily into its deep, serious, and magnificent meaning, for the theory and the practice will constitute safe criteria into the genesis, cultivation, and evolution of Byzantine music.

The criterion and basis of this work will be the tradition of the Great Church of Christ, which as a living mother guarded, in light of the most difficult situations, the essence of the Graeco-religious ideas.

Finally, we have arranged the material methodically in chapters, based upon outstanding contemporary teaching principles of paedagogical science.

## CHAPTER I

### *Meaning of Music*

Music<sup>1</sup> is a divine act and science, which, concerned with tones, aides us in expressing our sentiments of the heart by means of the voice and instruments. Thus it is distinguished between phonetical and instrumental music.

Music, as a performance, is a beautiful art, as a composition, on the other hand, it is an art and at the same time a refined science, for it succeeds in rendering wonderfully the meaning of the content of the poetical works by means of the correct combination of musical tones.

Specifically for the expression of religious sentiments of thanksgiving, faith, hope, and love toward God, the music of the Church is presented, the Byzantine Ecclesiastical Music.

### *Byzantine Music*

The music of the Orthodox Church formed into a system of holy character, in accordance with the Christian spirit, is called Byzantine, as we have already seen, for it was cultivated and developed in Byzantium.

Having been created by inspired composers, who were distinguished as melodes or hymnographers, it was cultivated with great caution by the spiritual leaders of the Church and of the State, that is, the Bishops and the Byzantine Emperors.

In accordance always with the tradition of the Orthodox Church, the ecclesiastical music, during the first years of Christianity, was simple as were the first christian hymns. Later, however, following the development of the hymns, it was enriched in method and in content.

In this manner, gradually evolving, it acquired a great brilliance mainly during the reigns of the Emperors Justinian and Heraclius( 6th and 7th centuries), when the large choirs of Saint Sophia and of the Holy Apostles translated this most perfectly.

But the epoch, during which the Byzantine Ecclesiastical Music reached its apex, was the period from the era of the famous hymnographer Romanos the Melode until the epoch of the father

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1. Music was thought of by the ancient Greeks to be a gift of god. "Music of the god is a gift it is confessed" (Plutarch from Plato concerning superstition).

of ecclesiastical music and of the orthodox dogmatical teachings, St. John Damascene, i.e. from the 6th until the 8th century. Byzantine Ecclesiastical Music, which constitutes also the basis of Hellenic folk music, is considered as the unbroken continuance of ancient Greek music, for as the pro-Christian thus the Christian music of the Hellenes have a common characteristical feature: harmony, i.e. the monophonical performance of hymns, in antithesis to the polyphonetical performance of European music.

## Chapter II

### *Characters of Byzantine Music*

Byzantine Ecclesiastical Music, as all other music, is a language and especially the language of the heart, since it expressed the senses of man, naturally, also has the rudiments from which is constituted a language. These rudiments, which Byzantine music uses for its thorough learning are called *characters*; its script, on the other hand, is called *musical notation*. For the reading of the characters or the melody of a hymn it uses special tones, which came from either the human voice or from divergent musical instruments.

The tones of Byzantine music are seven in number. They received their names from the seven first letters of the Greek alphabet: Α Β Γ Δ Ε Ζ Η , which were comprised accordingly in order to constitute easy syllables and enjoyable music to the ear. Thus came about these seven tones:

Πα, Βου, Γα, Δι, Κε, Ζω, Νη,

The first tone is Πα , for it contains the first letter of the Hellenic alphabet Α , second tone is Βου , having the second letter Β , etc.

This is the reason, for which in earlier times began the reading from Πα , while today we begin from Νη = Νη, Πα, Βου, Γα,

Δι, Κε, Ζω, Νη because this order corresponds more to the internationally exemplary physiological succession of tones.

The characters<sup>2</sup>, i.e. the signs with which is written Byzantine music differ from their duty. Others have relation with the naming of the tones, i.e. they show ascent or descent of sounds, while others have relation to the time and yet others to the better rendering of the melody. In accordance to their work, therefore, they are divided into three general categories:

- a) characters of quantity
- b) characters of time
- c) characters of quality.

#### A. *Characters of quantity.*

These are called thus for they show the quantity of the tones, i.e. their equality, ascent, and descent. These are ten in all; according to their work they are subdivided into three smaller categories:

- 1) characters of equality
- 2) characters of ascent
- 3) characters of descent

#### 1. *Characters of equality.*

There is one such characters, the ison, which is written  . It is called an ison, for it neither ascends nor descends, but shows equality, i.e. it repeats the preceeding note; for example, if we have as a basis the note  $\text{N}\eta$  and in succession follows one or more ison then it will repeat the  $\text{N}\eta$  one or more times, analogous to the number of ison, thusly:  $\text{N}\eta \text{ } \text{N}\eta \text{ } \text{N}\eta \text{ } \text{N}\eta$  . If we have a basis the note  $\Pi\alpha$  and one or more ison follow, then we repeat the  $\Pi\alpha$  , thusly:  $\Pi\alpha \text{ } \Pi\alpha \text{ } \Pi\alpha \text{ } \Pi\alpha$  . This method is also followed for the remaining seven notes.

2. Until the time of the three teachers Chrysanthos, Gregory, and Chourmouzios (until the year 1814) different scripts of notation were used, that is heiroglyphical signs, cuniform and signs of an alphabet of musical notation. The signs (characters), which Byzantine music still uses today, according to the wise K. Oikonomos were molded and called thusly by the first Melodes of the Orthodox Church, partly from the diagrams of the ancient Greek music, mainly from the grammatical signs of prosody (K. Oikonomos, **Concerning the pronunciation of the Greek language**, vol. IV, pp. 434,457). From the notations or characters the Oligon, Kentima, and Kentimata are shown to have been formed from the letter

## 2. Characters of ascent.

The characters of ascent are five in number, being called "of ascent" for they are used only to ascend the scale; they are the following:

1. *oligon*, which is written — and ascends one note continuously, i.e. after the Νη we ascend to Πα, , after the Πα we ascend to Βου , and so on. For example, 

Bou .

2. *petaste*, which is written  and ascends, similarly, one note continuously, only with two minute differences in performance as we shall see below. The deeper meaning of the use of the equivalents in relation with the oligon of the tones of the petaste and of the kentimata, we shall see, is the orthography, as exactly happens in a language, which govern different orthographic principles.

3. *kentimata*, which is written  and ascends one tone continuously.
4. *kentima*, which is written  and ascends two and three notes transgressively.<sup>3</sup>
5. *hypsite*, which is wirtten  and ascends four and five notes transgressively.

## 3. Characters of descent.

These characters are four in number. They are called "of descent" for they show descent of notes; they are the following:

1. *apostrophos*, which is written  and descends one note continuously; for example: Νη    .

**I** iota, the Hyporre from the letter **S** , the Petaste and the Elaphron from the capital **C** , the Hypsite and the Chamile from the two pneumata, i.e. the psile and the dasia (   ) by written modification and enlargement.

The Ison and the Apostrophos is shown that they were derived from the cuneiform script.

3. During the course of the melody it is possible for us to ascend and descent two or more notes transgressively, i.e. eliminating the intervening notes. For example Νη - Βου, Πα - Δι, Βου-Ζω, etc. This manner in antithesis to the continuous, is called transgression.

2. *hyporre*, which is written  and descends two notes continuously, for it is a combination of two apostrophae, for example:   
3. *elaphron*, which is written  and descends two notes transgressively.
4. *chamile*, which is written   and descends four notes transgressively.

These, therefore, ten characters, which show the amount<sup>4</sup> we must ascend or descend during the chanting of the melody, constitute the practical basis of Byzantine music.

*Exercises:* Character of amount. Continuous and Transgressive, ascent and descent in the natural scale of Νη .

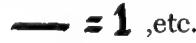
Toward practical exercise of the characters of quantity it is extremely necessary that we know some other signs, which are linked together with these. The first sign is the *diastima*, or *tonos*. Diastima or tonos is called the interval between two notes. If the interval has only two notes, or tonos, it is called diastima of the second (for example: Νη - Πα). If it has three notes, it is called diastima of the third (for example: Νη - Βου). If it has four, of the fourth (Νη - Γα), etc.

The second sign is the rhythm.<sup>5</sup> The Hymns of Byzantine Ecclesiastical Music, which are known in the musical language as melodies, are constituted from many characters of rhythm and of quantity. Each character of quantity in Byzantine music has one value and represents one special tone, i.e. it has a certain note. With the term *value* we mean the chronological interval, in which each tone is

4. In the notes we distinguish two: quantity and quality. The quantity examines, as we saw, the equality, the height, and the baseness of the notes; while the quality governs, as we will see, their good restitution and quality.

5. More generally rhythm is order and symmetry, which comes from perceptibility throughout the universe. It constitutes an indispensable element of nature (succession of day and night, work and rest) and an essential element in all fine arts (music, painting, sculpture, poetry). It is presented and becomes perceptible in all its appearances of human life (walking, dancing, bodily exercises, heart beat). In speech, also, rhythm is presented by the symmetrical composition of syllables, words, and sentences. "Rhythm is an exact composition of beats" according to Nikomachos. "Divided times is on each of the notes to be placed in rhythm," according to Aristoxenos.

performed. These chronological intervals of tones of a melody even if they are divergent, i.e. other are ison and others non-ison, some are smaller and others are larger; however, they have canonical relations amongst themselves, they are placed with some symmetry. This symmetrical combination, exactly, of chronological values of tones is called rhythm.

With this rhythm as a basis we proceed in order to find a melody. Toward an easier and more final performance of the melody we proceed to smaller subdivisions, which are called *metres* or *feet*. This subdivision is arrived at by small perpendicular lines ( | , | , | , | ), which are called dilatations, the interval from one dilatation to another is called *metre*. Within each metre are found certain characters of quantity, each of which is performed within a certain chronological interval, which is called *beat*. This beat is the more important sign in music, it is the soul of music. 1.) It is this chronological unit of the subject that we measure and calculate the rhythm. We accept, that is, that each character of quantity has one beat, for example:  = 1       = 1 ,etc.

2) When the metre has two beats, the rhythm is called *disimos*. When it has three beats, the rhythm is called *trismos*, and when it has four beats, it is called *tetasmos*.

Also, in relation to the rhythm, we stress that, in order for a metre to be performed it must, indispensably, become a symmetrical measurement for its beats, through divergent durational movements of the hands.

The number of the movements is examined from the type of melody, i.e. whatever the number of beats are, that will be the number of movements. Thus we have arrived at the major three metres: 1) Metre of two beats (*disimos* rhythm), 2) Metre of three beats (*trismos* rhythm), and 3) Metre of four beats (*tetasmos*).

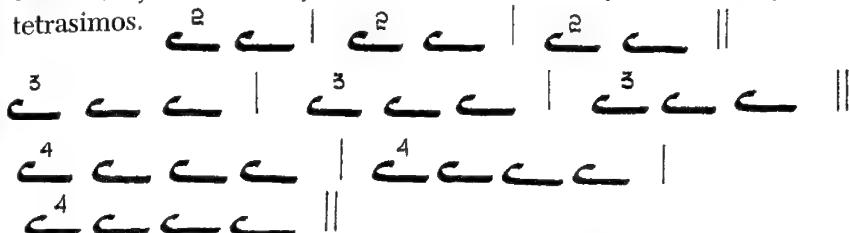
1) Metre of two beats. When the metre has two beats it will be sung in two movements. The first movement is downward, accordingly with the course which the arches show, and is called thesis; the second movement is upward and is called arsis. Of these the thesis is the stronger.

2) Metre of three beats. When the metre has three beats, it will be sung in three movements. The first, which is stronger, is called thesis, the other two arses. The first

is downward, the second toward the right, and the third upward.

- 3) Metre of four beats. When the metre has four beats, it will be sung in four movements. Of these the first, which is also called thesis, is downward, the other three, which are called arses, the second toward the left, the third toward the right, and the fourth upward.

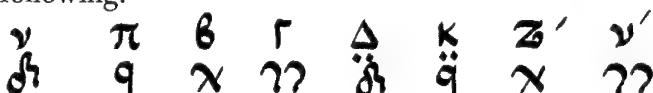
The type of metre is noted by the number 2 if the rhythm is disimos, by 3 if the rhythm is trismos, and by 4 if the rhythm is tetrasimos.



Finally, in accordance with the rhythm, we stress that, alternation of rhythm is possible in one and the same melody. While we start with disimos rhythm, however, we encounter a tetrasimos or a trismos in the same melody; again arriving at the disimos.

This happens many times in melodies of Byzantine music, for their rhythm is depended on the stress of words and is thusly called *tonismos*,<sup>6</sup> in antithesis to European music, which does not consider stress of words and of which the rhythm is called prosodical.

The third indispensable sign toward the practical exercise of Byzantine music are the *martyria of the notes*. Martyria are the signs, which display the notes to us. The martyria are certain symbols, which give us the nomenclature of each note. Each martyrium is consisted of two signs, the main letter of the note and the sign, which is called martyrical sign. The martyria are eight in number, as many, i.e., and there are notes in Byzantine music. They are the following:

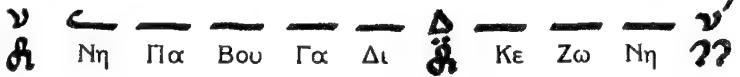


The martyria in concern, which are used by the tunes of the diatonic gender, as we shall see below, are called diatonical, in anti-

6. "We rejoice in rhythm, for the mark and ordered number having and moving us orderedly. More familiar is the ordered movement in the nature of disorder by the habit in manners we rejoice." according to Aristotle.

thesis to the chromatical.

Indispensably they are used: 1) in the beginning of each hymn, where we receive our basis, from which we will start the chant; 2) in the end of the hymn, in order to know the final note; and 3) during the course of the hymn, or at the end of each musical phrase, in order to assure ourselves that the chant is proceeding well.



With all the above mentioned as a basis, we come to the practical exercise, using, from the beginning, the characters ison

( , oligon ( , ascent of one note) and apostrophos ( , descent of one note).

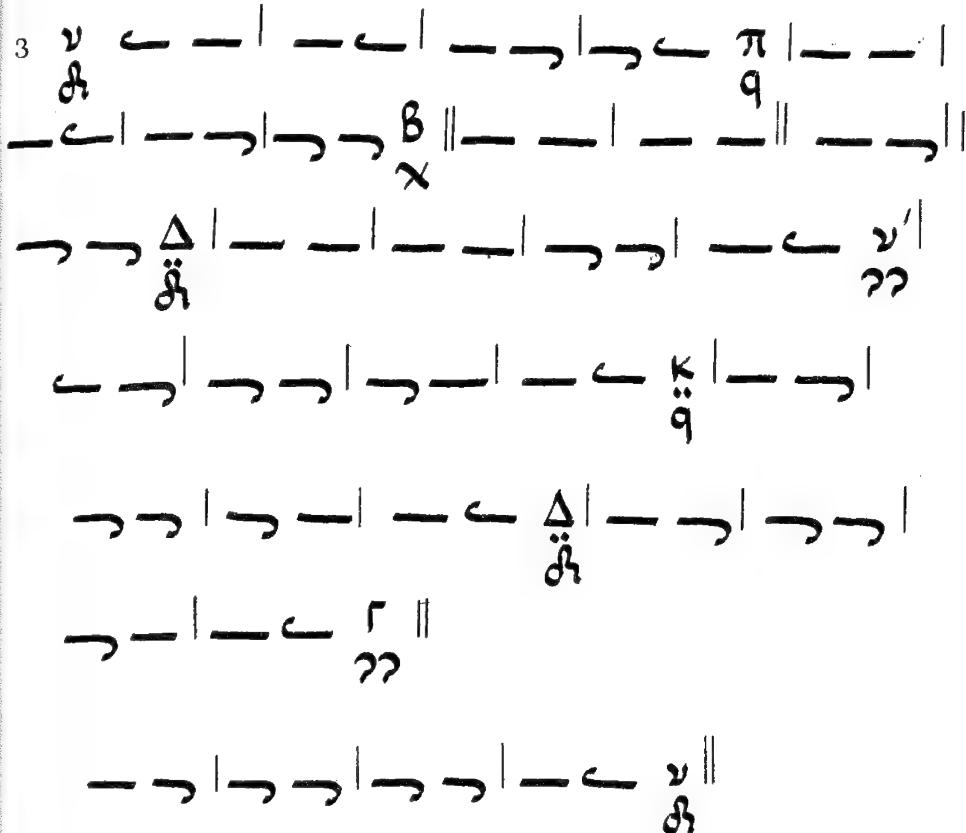
In the exercise in mention the rhythm is disimos, where the movements of the hands will be two (down and up). The sign in which we direct our attention is the strong connection, which must be found between the first and second movement and the recited note.<sup>7</sup> Both, that is, have to be done at the same time. Intelligibly, therefore, is that each character must be performed in one beat.

#### Disimos Rhythm

#### Disimos Rhythm

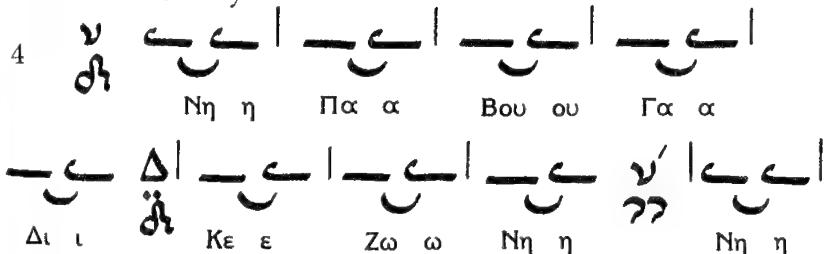
7. Being called accented rhythm in Byzantine music we mean the exaltation, which is given on the accented syllable, i.e., there is an accent of words, it must also coincide with the strong portion of the metre, or the thesis.

Disimos Rhythm



Side by side with the signs, which have been brought forth thus far, in accordance with the reading of Byzantine music, is found another, called *hyphen*. This is a curved line (    ) which joins together two characters of the same acuteness and gives the value of the second character to the first, (as precisely happens with the union of duration in European music).

Disimos Rhythm



### *Concerning the petaste*

Similarly, as we saw in the beginning, beside the oligon, there are two other characters, which ascend one tone continuously. These are the petaste and the kentimata. Of these the petaste is performed with a slight quivering of the voice, or during the musical excursion we quickly approach the immediate acute note with an immediate return toward the former. Analogous, it happens to the double eighth-note of European music. Exercise:

۶  
اے اے اے اے اے اے  
اے کے اے اے اے اے اے  
کے اے اے اے اے اے  
کے اے اے اے اے اے  
کے اے اے اے اے اے  
کے اے اے اے اے اے

Finally, the kentimata are used when we ascend continuously; also, as we shall see, when we must repeat the same syllable of the word. Exercise:

7      ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥ ॥

## Composition of Characters

With the above mentioned ten characters we are able to ascend or descend, one, two, three, etc. notes continuously. However, there is no character, which ascends or descends two or more notes transgressively. Because of this the so-called composition of characters was invented, through which we place two or more characters arranging these analogous. Thus, there proceeded the forms of composition seen below, by which the melody of Byzantine music receives its fulness.

### a) Composition of notes of ascent:

			2 notes
			3 notes
			4 notes
			5 notes
			6 notes
			7 notes <sup>8</sup>

### b) Composition of notes of descent:

	3 notes
	4 notes
	5 notes
	6 notes
	7 notes

## Continuous and Transgress Variations<sup>9</sup>

Before we study whatever musical hymn, we must know this first through the recitation of the characters and consequently

8. There is a composition beyond the eight notes, also, as  or  which equal eight notes, etc., except they are used very rarely.

9. Variation (from the verb παραλλάσσω) means a transmission from hand to hand, conveyance. This transmission comes about by the application of syllables of notes on the engraved characters.

through the syllables of the hymn. The first form of the study, in other words, must come from variations, which are divided into continuous and transgress. Continuous is that one, as we have already seen, through which we rise from one cord, tone, to the immediate higher or lower one. The exercises up to this point have been written in continuous variations.

Transgress variation is that, as is well known, through which we ascend from the one cord to the other transgressly, i.e., we eliminate the intermediate characters. Because toward ascent of two or more notes we use the composition of the characters, therefore transgress can be called composed variation.

#### *Characters of Time*

As we have already mentioned, in Byzantine music each character of quantity represents one beat; for example, the  has one beat, the  has one beat, the  likewise has one beat, the  also, etc.

The richness, however, of the melody creates the need of augmentation or decrease of each beat. Therefore, as soon as the writing of Byzantine music found the road of its simplification, especially a special class of characters with divergent signs occupied the discoverors. These characters according to their work are distinguished thusly:

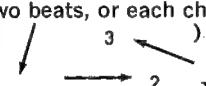
- a) Characters which augment the time,
- b) Characters which divide the time, and
- c) Characters which divide and augment the time.

#### *A) Characters which augment the time.*

These are four in number: The clasma , the single , the double , and the triple .

Of these four, the clasma is placed either above or below the characters,    ; the rest below,   .

The clasma and the single add one beat; therefore if we have an oligon with a clasma or an apostrophos with a single, then we will have a disimos beat, or one beat for each character ( or ) and one beat for the clasma or the single.<sup>10</sup> Finally, if

10. A double adds two beats, or each character with a double has three beats, it is thus a trisisos (  ).

we have an oligon or some other character with a triple ( ... ,  
— , — , — ), then we will have a tetrasimos time. Exercises.

8 Υ Κ | Κ | Κ | Κ | Κ Δ Κ | Κ | Κ |  
 Η Πα Βου Ο

— עֲמָקָם | בְּרֵבֶד | נַעֲמָן | אַתְּ | נִזְנְתָּן ||

9      ୟ କ ଟ କ ଟ କ ଟ କ ଟ କ ଟ

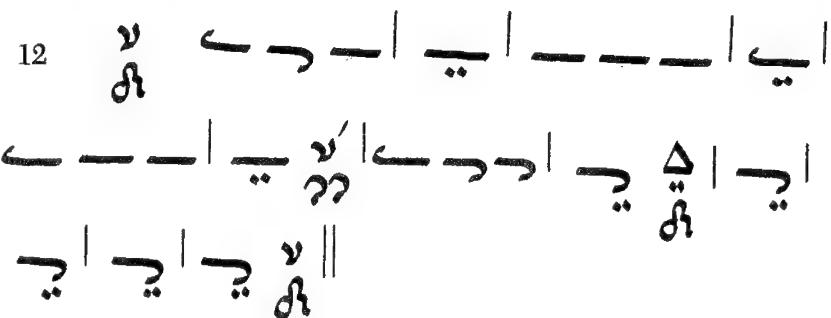
|| הַלְאָכָר אֶת־אֶת

—→ | ? | —→ | ? | ݂ ||

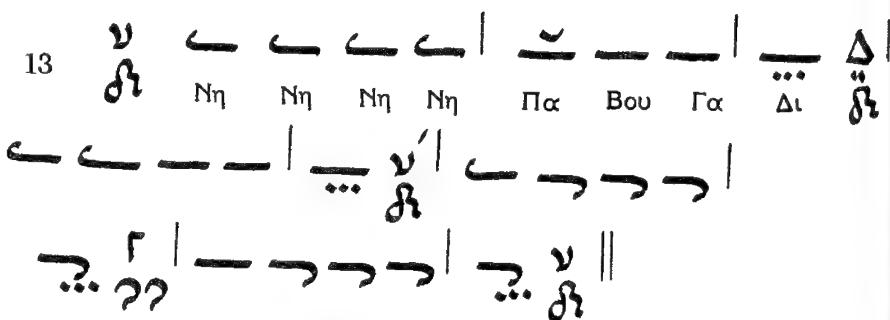
## Triple Metre

$\Gamma_\alpha$   $\Delta t$  |  $\Delta t$   $\frac{\Delta t}{\delta t}$  | — — — |  $\rightarrow$  |  $\rightarrow$  | — — — |

॥



Tetrasimos Metre



### B) Characters which divide the time.

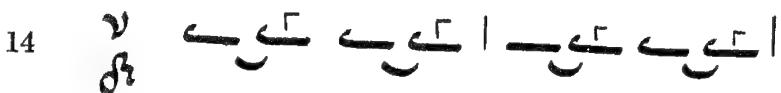
The characters which divide the time are three. The gorgon, which is written , the digorgon, consisting of two gorga , and the trigorgon, consisting of three gorga .

- 1) Of these the gorgon divides the time into two parts, each of which represents  $\frac{1}{2}$  beat, and is placed on the second character. Accordingly to this, we know that the or the or any other character of quantity alone has one beat; however, when on this is placed the , then it becomes a  $\frac{1}{2}$  beat, for example = 1 beat, =  $\frac{1}{2}$  beat. Thus in order to complete indispensably the whole beat, two characters are needed, as the following:

=

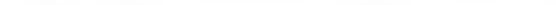
Exercises.

### Double Metre



اے کریم اے کریم  
اے کریم اے کریم  
اے کریم

## Double Metre

15 

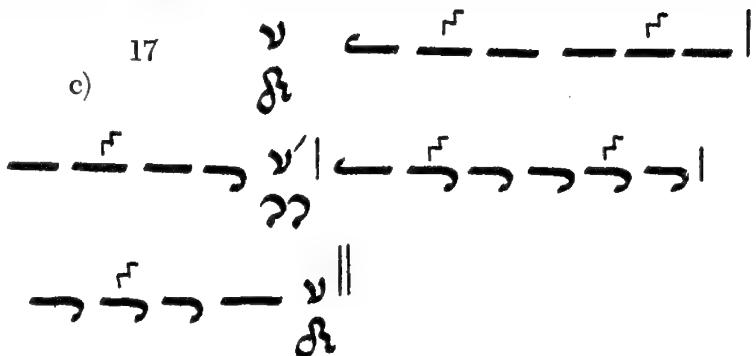
בְּ אַלְרָלָל אַלְרָלָל ||

- 2) The digorgon divides the time into three parts, i.e., it joins three characters and is placed, as is the gorgon, on the second character. For completion, therefore, of an entire beat, three characters are needed, thusly: 

## Exercises.

## Double Metre

## Double Metre



- 3) The trigorgan divides the time into four parts, i.e., it joins four characters, which must be performed in one movement. It is placed, likewise, on the second character. Consequently, in order for an entire beat to be completed, four characters are needed:



## Exercises.

### Double Metre

18

ବୁଦ୍ଧିରେ କାହାରେ କାହାରେ କାହାରେ କାହାରେ କାହାରେ କାହାରେ

## Double Metre

۱۹ گی اَلْرَبُّ رَبُّكَ  
۱۹ گی

C) Characters which divide and augment the time.

These, also, are three. The argon 𠂇, the hymiolion or tri-imiaargon 𠂇, and the diargon 𠂇. These three characters are used only in one script, namely, they are placed above the oligon, having below kentimata, thusly: 𠂇, 𠂇, 𠂇. Because they have a double job, they are called characters which divide and augment the time.

- 1) Of these three, the argon (ㄱ) has its own value in relation to the gorgon and the clasma, they work as the gorgon on the kentimata and the characters before them, as the clasma on the oligon, thusly: ㄱ ㄱ ㄱ ㄱ ㄱ ㄱ

## Exercises.

Trisimos Metre

$\overleftarrow{\text{נ}} \frac{1}{\text{n}} | \overleftarrow{\text{נ}} \frac{1}{\text{n}} | \overleftarrow{\text{נ}} \frac{1}{\text{n}} | \text{נ} \frac{5}{\text{n}} \text{ ג}$

- 2) The hymiolion or triimiargon ( נ ) works as the gorgon on the kentimata and the characters before them, as a double on the oligon, thusly:  $\overleftarrow{\text{n}} \frac{1}{\text{n}} = \overleftarrow{\text{n}}$

Exercises.

21      ג  $\overleftarrow{\text{n}} \frac{1}{\text{n}} | \overleftarrow{\text{n}} \frac{1}{\text{n}} | \overleftarrow{\text{n}} \frac{1}{\text{n}} | \overleftarrow{\text{n}} \frac{1}{\text{n}} | \text{ג} \frac{5}{\text{n}} \text{ ג}$

$\overleftarrow{\text{n}} \frac{1}{\text{n}} | \overleftarrow{\text{n}} \frac{1}{\text{n}}$

$\overleftarrow{\text{n}} \frac{1}{\text{n}} | \overleftarrow{\text{n}} \frac{1}{\text{n}} | \text{ג} \frac{5}{\text{n}} | \text{ג} \frac{5}{\text{n}} \text{ ג}$

- 3) The diargon ( ננ ) works as the gorgon on the kentimata and characters before them, as the triple on the oligon, thusly:  $\overleftarrow{\text{n}} \frac{1}{\text{n}} = \overleftarrow{\text{n}} \frac{1}{\text{n}} \text{ .. }$

Exercises.

22      ג  $\overleftarrow{\text{n}} \text{ .. } | \frac{1}{\text{n}} \text{ .. } | \frac{1}{\text{n}} \text{ .. } | \frac{1}{\text{n}} \text{ .. }$

$\frac{1}{\text{n}} | \overleftarrow{\text{n}} \text{ .. } | \frac{1}{\text{n}} | \overleftarrow{\text{n}} \text{ .. } | \frac{1}{\text{n}}$

ג  $\overleftarrow{\text{n}} | \text{ג} \frac{5}{\text{n}} | \text{ג} \frac{5}{\text{n}} | \text{ג} \frac{5}{\text{n}}$

$\frac{1}{\text{n}} | \text{ג} \frac{5}{\text{n}} | \text{ג} \frac{5}{\text{n}} | \text{ג} \frac{5}{\text{n}}$

*Relation of Characters of time with the corresponding sign of European music*

Attributing greatest meaning to the understanding of the rhythm, below we compare the characters of time of Byzantine with European script.

1) Characters which augment the time

$$\text{—} \quad = \rho$$

$$\text{—} \text{—} \quad = \rho$$

$$\text{—} \text{—} \text{—} \quad = \rho.$$

$$\text{—} \text{—} \text{—} \text{—} \quad = o$$

2) Characters which divide the time

$$\begin{array}{c} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \\ \text{—} \text{—} \\ \text{—} \text{—} \text{—} \end{array}$$

$$\begin{array}{c} \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \\ \text{—} \text{—} \\ \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \end{array}$$

$$\begin{array}{c} \text{—} \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \\ \text{—} \text{—} \\ \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array}$$

3) Characters which augment and divide the time

$$\begin{array}{c} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \\ \text{—} \text{—} \\ \text{—} \text{—} \text{—} \end{array} \rho$$

$$\begin{array}{c} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \\ \text{—} \text{—} \\ \text{—} \text{—} \text{—} \end{array} \rho.$$

$$\begin{array}{c} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \\ \text{—} \text{—} \text{—} \text{—} \text{—} \end{array} = \begin{array}{c} \text{—} \\ \text{—} \text{—} \\ \text{—} \text{—} \text{—} \end{array} o$$

*Concerning Rests*

The rests, otherwise called the siopai, consisting of characters of time, are indispensable to the melody, when this requires the interruption of the reading of some beat.

Toward a more full understanding of the rests, we compare these toward the corresponding characters of European music.

Rest of one beat



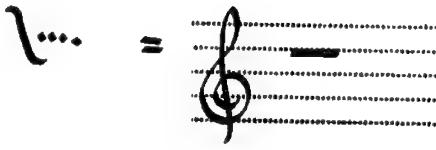
Rest of two beats



Rest of three beats



Rest of four beats

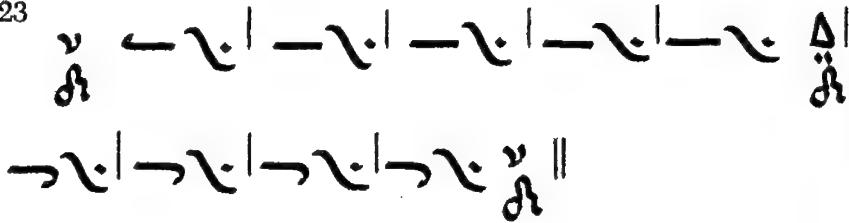


Rest of  $\frac{1}{2}$  beat



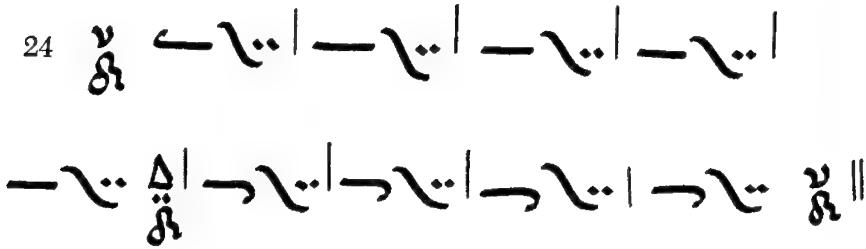
Exercises: rest of one beat.

23

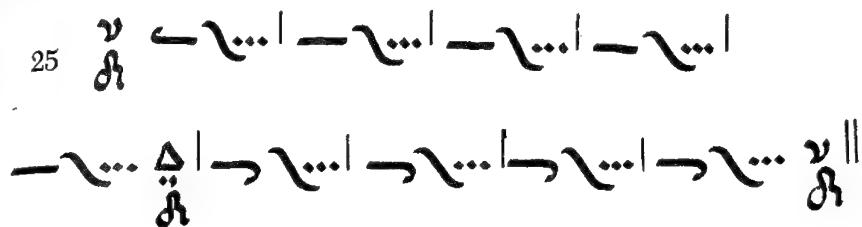


Rest of two beats.

24



Rest of three beats.

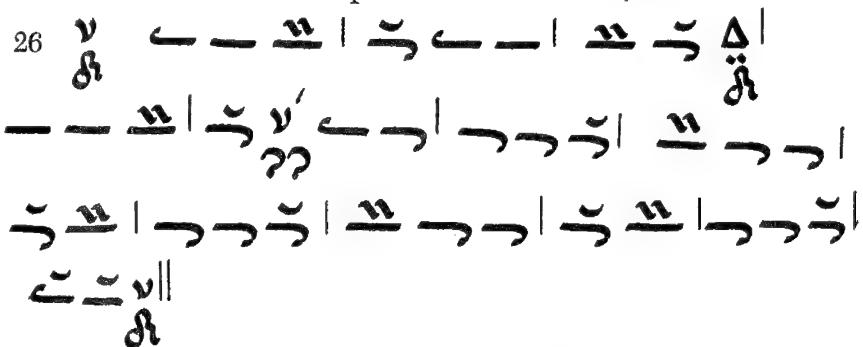


### *Analysis of certain scripts*

Many times in Byzantine music we come across certain scripts with altogether divergent characters. This came from the richness and variety of the rhythmical movement and of other characters of quantity and quality, which, toward the most exact performance, had need of correct position and script. Thusly, besides the others, there came into being these newly-mentioned scripts, into the translation of which we shall now enter.

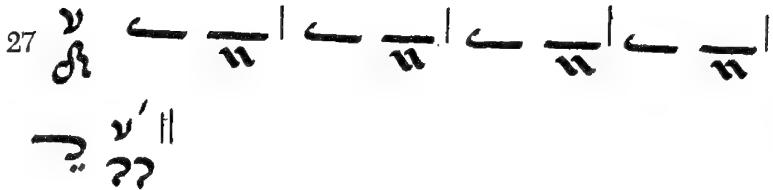
- a) During the extent of the melody, the kentimata, many times, are found above or beneath the oligon, namely

, . In the first instance ( ), the oligon is performed first and the kentimata follows, = — . Likewise, in this instance, the kentimata are used toward a repetition of the same syllable.

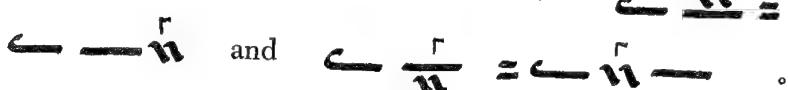


- b) Also within the melody, we see again that the kentimata are found beneath the oligon . Then the kentimata are performed first and the oligon follows,





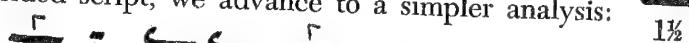
Finally, in these two instances, many times it happens that the gorgon is found ( , ). Then the gorgon works on the kentimata and in these two instances,



- c) Many times, during the performance of a hymn, we come across the well-known hyppore ( ), having above it a gorgon. In this instance the gorgon is placed and is understood on the first apostrophon, being known that the hyppore is a combination of two apostrophos. According to this, another character must therefore precede the hyppore, for the gorgon, as all other characters which divide the time, is always placed on the second character, thusly:



- d) Finally, in relation to the translation of the script, we bring forth another instance, more commonly used in Byzantine musical notation. This is the script . We already know that if we only had the then the time would be disimos. In this instance, however, the gorgon always placed on the second characters will comprise the oligon and the character before it, namely the clasma; likewise, the ison with the clasma has  $1\frac{1}{2}$  beats, the oligon  $\frac{1}{2}$ . Thus, the disimos is completed. For a more complete understanding of this somewhat many-sided script, we advance to a simpler analysis:



$\frac{1}{2}$  =  $\frac{1}{2}$  . The same happens exactly when there is a single  $\frac{1}{2}$  . This musical composition we can parallel with the representative from European music, namely:

$$1) \quad \text{مـ} \text{ـ} = \text{مـ} \text{ـ}$$

$$2) \quad \text{بـ} \text{ـ} = \text{بـ} \text{ـ}$$

In this second instance, the same thing happens exactly, as in the first, with the difference that a single is added, we will have not three beats, but  $2\frac{1}{2}$  and  $\frac{1}{2}$  ( بـ مـ ).

$2\frac{1}{2}$        $\frac{1}{2}$

### *Continuous elaphron*

Within the musical richness of Byzantine music, we discriminate the instance of the continuous elaphron. This is comprised of the elaphron  and the apostrophon, which is placed before it and next to it  . Only when the apostrophos if the elaphron is found, we have this form, otherwise they would be performed separately, according to their own value.

The continuous elaphron has wholly peculiar form of performances, during which the elaphron is converted into two apostrophos, the apostrophos having the position of a gorgon, thus:

 =  . Easily understood is, that before the continuous elaphron, there must be found another character, connected with the apostrophos, having above it the gorgon

 = 

Exercises.

28 





29 

— ḫ ˘ | — ḫ ˘ ˘ ||

30 ˘ ˘ ˘ | — ˘ ˘ ˘ ˘ | — ˘ ˘ ˘ ˘ ||

— ḫ ˘ | — ḫ ˘ | — ḫ ˘ ˘ ||

Rhythmical form

˘ ˘ ˘ | — ˘ ˘ | or ˘ ˘ ˘ | — ˘ ˘ |

Disimos Rhythm

31 ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ |

˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ |

˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ ||

Rhythmical form

˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ |

Disimos Rhythm

32 ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ |

˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ | ˘ ˘ ˘ ˘ |

אַל־יְהוָה־בְּנֵי־עַמּוֹן  
אֲלֵיכֶם־בְּנֵי־עַמּוֹן

### Rhythmical form

۷۰۰

— תְּנַשֵּׁא לְאָדָם כִּי־בְּרֹא לְעֵמֶק עַמְקָה ||

### Rhythmical form

C C  
..  
 $2\frac{1}{2}$        $\frac{1}{2}$

## Trisimos Rhythm

34      ॥  
 ॥  
 ॥

### Rhythmical form

۳۱۲      ۱۲



Rhythrical form with a continuous elaphron

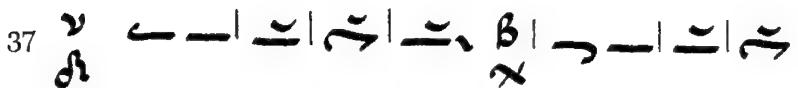


*Different exercises of transgressive ascents and descents*

a) Intervals of three.<sup>11</sup>

1) Ascent of two notes by the kentima is found before or under the oligon or and by the oligon placed above the petaste, .

2) Descent of two notes by the elaphron .



11. They are called intervals of three, for from each one until the other note, there are three characters. This happens with the intervals of four, five, six, seven an eight. Or, when we have four characters, then the interval is called four, five for five, etc.

38 | Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |  
 Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |  
 Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |  
 Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |  
 Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |

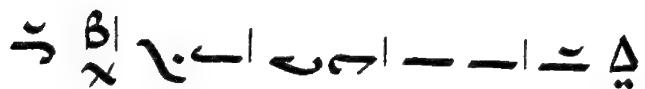
For the application of the intervals of three, we offer the following hymn, taken from the Anabathmoi of the Fourth Plague.

### Anabathmos

38 Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |  
 Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |  
 Ε | κ | ν | ε | ο | τ | η | τ | ο |ς | μ | ο |υ | ο | ε |χ | θ | ρ | ο |ς |

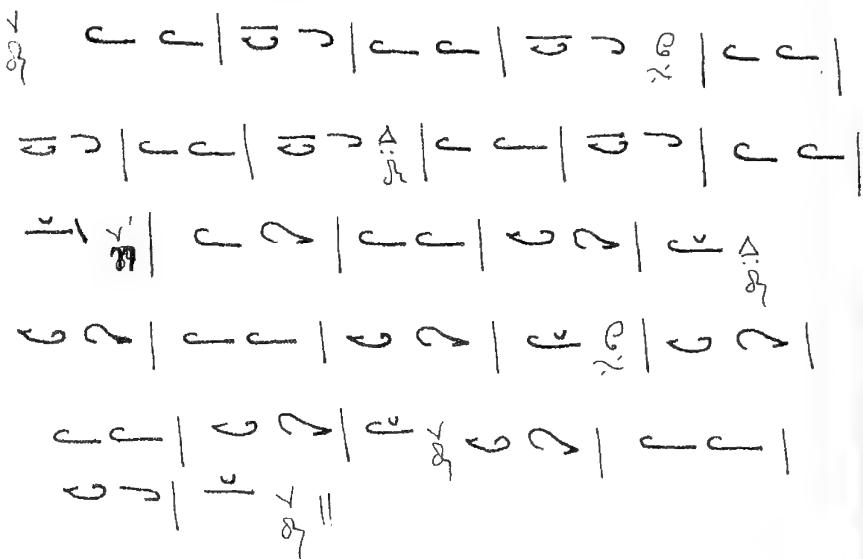
Η | ε | π | ε | λ | ρ | α | ζ | ε | λ | Φ | λ | ε | γ | ε | λ |  
 Η | ε | π | ε | λ | ρ | α | ζ | ε | λ | Φ | λ | ε | γ | ε | λ |  
 Η | ε | π | ε | λ | ρ | α | ζ | ε | λ | Φ | λ | ε | γ | ε | λ |

Η | ε | π | ε | λ | ρ | α | ζ | ε | λ | Φ | λ | ε | γ | ε | λ |  
 Η | ε | π | ε | λ | ρ | α | ζ | ε | λ | Φ | λ | ε | γ | ε | λ |

  
 με ε γω δε πε ποι θως  
 me e go the pe pi thos

  
 εν σοι Ku ρι ε τρο που μαι tou τον  
 en si Ku ri e tro pu me tu ton

From this juncture all the hymns which are to be found in the book will have the English transliteration printed below.



b) Intervals of four, i.e., ascent and descent of three notes.

1) We ascend three notes then the kentima is found above the oligon or petaste  ,  , and

2) We descend three notes when within the elaphron there is an apostrophos 



A Hymn for the application of the intervals of four taken from the Aposticha of the Fourth Plague.

41 Χατ αι ρε Σι ων α γι ι ι  
Che e re Si on a gi i i

α θη τηρ των εκκλη σι ων θε  
a Mi tir ton ekkli si on The

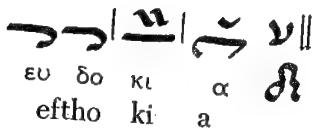
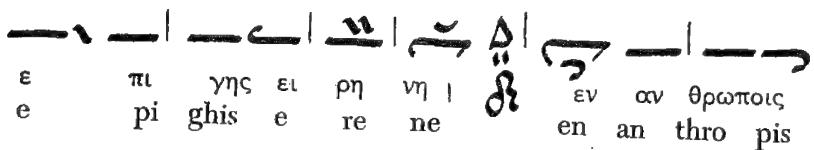
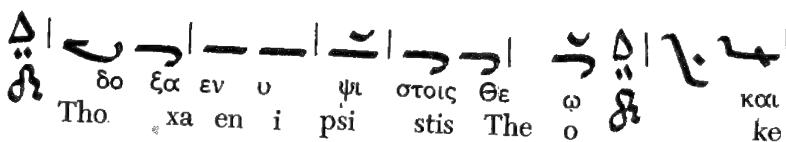
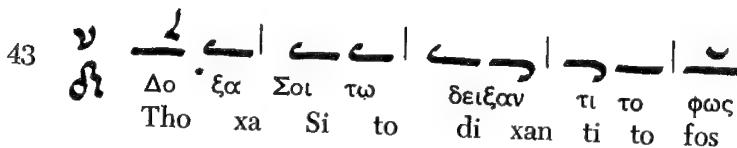
ου κα τη κη τη ρι ον Σι υ γαρ ε  
u ka ti ki ti ri on Si i gar e

δε ξω πρω τη θ α φε σιν α μαρ τι ων  
the xo pro ti a fe sin a mar ti on

δι α της α να στα α σε ως  
Thee a tis a na sta a se os

- c) Intervals of five, i.e., ascent of four notes by the hypsile placed to the right of the oligon or the petaste,  or  and descent of four notes by the chamili 

A Hymn, for the application of the intervals of five, taken from the Doxology.<sup>12</sup>



- d) Intervals of six, i.e., ascent of five notes by the hypsile placed to the left of the oligon or by the petaste  or  and descent of five notes by the apostrophos, placed under the chamili 



12. It is called Doxology for it starts with the words "Glory to Thee, Who hast shown forth the light."

תְּהִלָּה אֲשֶׁר-אַתָּה כֹּהֵן בְּנֵי יִשְׂרָאֵל  
בְּנֵי יִשְׂרָאֵל תְּהִלָּה אֲשֶׁר-אַתָּה כֹּהֵן בְּנֵי יִשְׂרָאֵל  
בְּנֵי יִשְׂרָאֵל תְּהִלָּה אֲשֶׁר-אַתָּה כֹּהֵן בְּנֵי יִשְׂרָאֵל  
בְּנֵי יִשְׂרָאֵל תְּהִלָּה אֲשֶׁר-אַתָּה כֹּהֵן בְּנֵי יִשְׂרָאֵל

A Hymn, for the application of the intervals of five, taken from the Doxology.

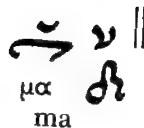
45

Ku ri e Ba si lef e piou ra ni  
Ki ri e Va si lef e pu ra ni

ε Θε ε Πα τερ παν το κρα α α τωρ  
e The e Pa ter pan to kra a a tor

Ku ri e I e μο νο γε νες 9 I η  
Ki ri e I e mo no ge nes 9 I η

σου ου Χρι ι στε και α α γι ον Πνευ  
su u Chri i ste ke a a gi on Pnev



- e) Intervals of seven, namely ascent of six notes, the hypsile placed on the right and the kentima in the middle of the oligon or of the petaste and descent of six notes by the composition of the chamili and the elaphron .

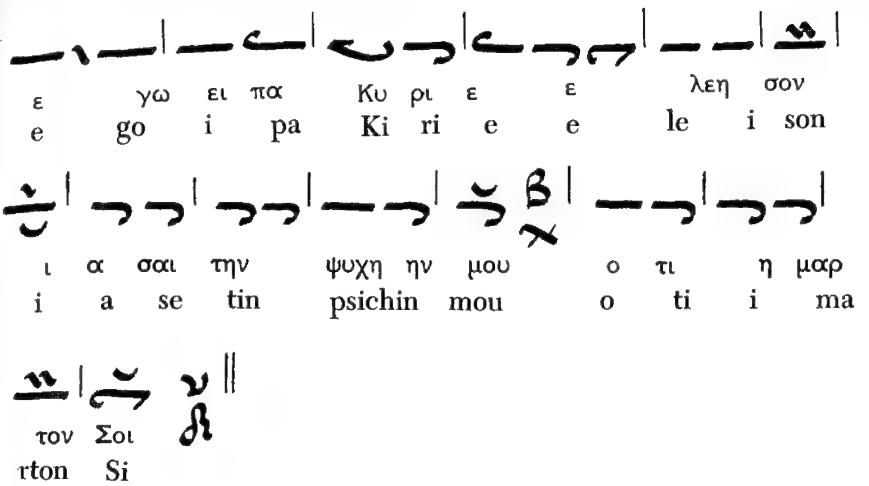
46

Hymn, for the application of the intervals of six, taken, likewise, from the Doxology.

47

Ku ri e ka ta fi gi e ge ni i  
 Ki ri e ka ta fi gi e ge ni i

θης η μιν εν γε νε α και γε νε α  
 this i min en ge ne a ke ge ne a



f) Intervals of eight, i.e., ascent of seven notes, the hypsile and the kentima found above and the middle of the oligon or of the petaste , and denotes by the composition of the chamili of the elaphron and of the apostrophos. 

48

The musical line consists of approximately 15 staves of neumes, starting with a single note and ending with a double note. The neumes are primarily composed of the two forms shown in the diagram above, representing the hypsile and kentima.

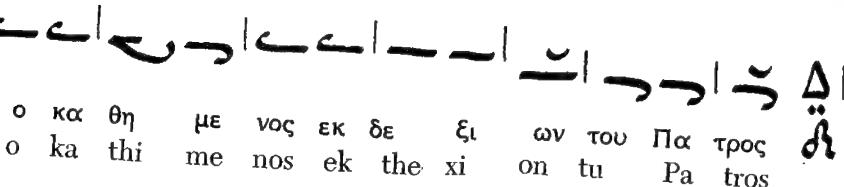
Hymn, for the application of the intervals of eight, taken from the Doxology, again.

49

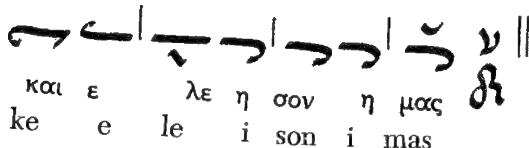


Προ σθε ε ξαι  
Pro sthe e xe

την δε η σιν ημων  
tin the i sin i mon

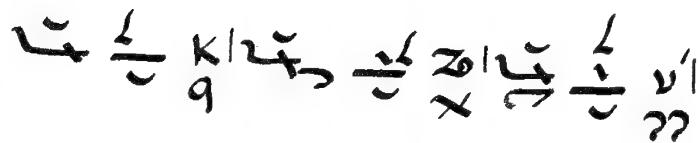
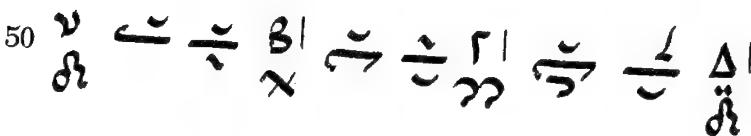


ο κα θη με νος εκ δε ξι ων του Πα τρος  
o ka thi me nos ek the xi on tu Pa tros



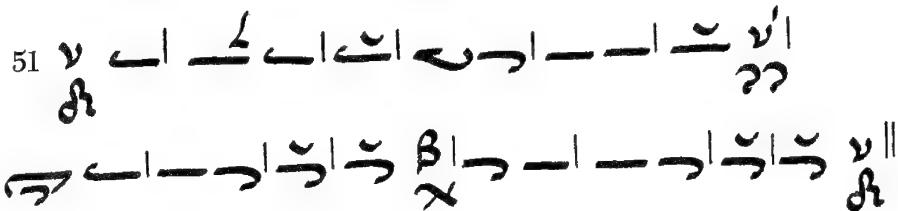
και ε λε η σον η μας  
ke e le i son i mas

Exercise, consisting of all the intervals of the tetrasimos time.



### *Elliptical metre*

It is called the first metre when it is not complete, but some movements are missing, accordingly with the value of the metre. For example, when we have a disimos metre, in the elliptical metre we begin with one character, which is able to be completed at the end, when the metre will be, also, elliptical. In such an instance, it is self-understood that we start from the arsis so that the thesis of the proceeding metre will be performed in the thesis.



### *Characters of expression or of quality*

These characters play an important role in Byzantine music, for they aid in the betterment of expression and rendering of the melody. Without the characters of expression, the melody of whatever hymn will be monotonous, and likewise unenjoyable. These characters do not have time, but by them is extolled and is sought the manner of the recitation of the notes. Because of these and because of the marvelous expressive quality, which they give to Byzantine melody, they were called tropikai.

Of all concerning these that we have said and of the practical experience, which will convey the reader, one is led to the result that these six characters of expression, or others not having time being called substances, were saved until today by the phonetical tradition by the best flourishing chanters and teachers during the epochs of ecclesiastical Byzantine music.

The characters of expression or of quality and other untimely substances are, as expressed, six:

The Bareia



The Homalon



The Antikenoma



The Psifiston

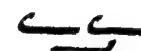
The Heteron or Connector (Syndesmos)

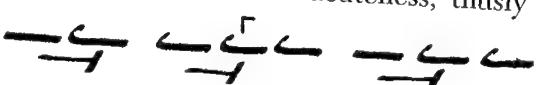
The Endophonon

The duty of these characters of expression:

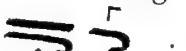
- 1) The Bareia of all the others is placed only before the characters of quantity. It is used to give a special accent to the character before which it is placed; accordingly, the character having the bareia is distinguished by the liveliness and accent of its preceding and proceeding character, It is placed thusly: 



- 2) The Homalon, placed below the characters of quantity, produces a slight quivering of the voice between the first and second beat. These are two instances of the positions of the homalon: a) it is placed beneath a character having a clasma, thusly   and b) beneath two characters of the same acuteness, thusly 



- 3) The Antikenoma is placed according to two manners beneath certain characters of quantity: a) beneath the oligon, where it is found in the so-called weak part of the metre,<sup>13</sup> when it also produces a shaking (liveliness) of the voice, thus   b) in the strong part of the metre beneath the character having a single and following a descending character with a gorgon



Consequently both the characters must be brought forth joined, never must we break them by a breath, the descending note wants the voice to be pronounced, in some

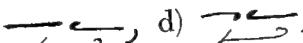
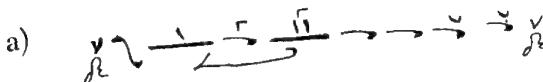
13. As we have already seen, in the disimos beat we have a thesis and arsis. The thesis is directed downward and the arsis upward. Of these the thesis is stronger and comprises the strong portion of the metre and the arsis is weaker and comprises the weak portion of the metre.

manner, as hanging.

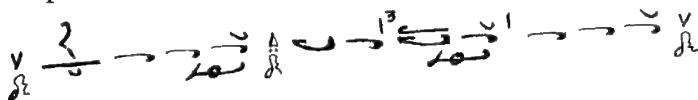
- 4) The Psifiston always placed below the characters produces quickness (liveliness) in them, in antithesis toward the following descending notes, which must be weaker.



- 5) The Heteron or Connector. This always joins different ascending and descending characters, which must be brought forth with sweetness, slight wavering of the voice and undivided.



- 6) The Endophonon. This is placed below the characters and is performed with a closed mouth, usually.



### Natural Diatonic Scale

It is known that the notes in Byzantine music are seven. If we add one more we will repeat the first, when there will be performed a scale of eight continuous notes. The continuous scale therefore, of these eight notes, or otherwise called a chord, is called a scale (scala). The first note or chord is the basis of the scale, from which the entire scale takes its name. Because of this, the scale has its basis Νη, that which has its basis Νη is thus called the scale of Νη.

$\Pi\alpha$  is called the scale of  $\Pi\alpha$ , that which has its basis  $\Gamma\alpha$  is called the scale of  $\Gamma\alpha$ , etc.

For an easier understanding of the intricate scales of Byzantine music we must begin with the natural diatonic scale of  $\text{N}\eta$ , which is a comparison of the natural scale of Do in European music.

It is called the natural scale or diatonic, for it is comprised of natural notes, which each represent a note.

Besides the eight notes, a scale, and the natural scale in subject, has seven tones or intervals, which comprise the space from one note to another; for example  $\text{N}\eta \cdot \Pi\alpha$  is one tone or interval,

$\Pi\alpha\text{-Bou}$  is also one tone,  $\text{Bou}\text{-}\Gamma\alpha$  likewise, etc. On the one hand the note represents one sound, on the other the tone is the distance from one sound to the other.

The Intervals of the natural diatonic scale are called natural and differ amongst themselves, i.e., other are larger and other smaller. Analogous to their size and their sound they are separated into three groups of tones. Thus the larger group is called meizon, the smaller elasson tone, and still smaller the elachistos tone.

The natural diatonic scale has three meizon tones:

$\Gamma\alpha\text{-}\Delta\iota$ ,  $\Delta\iota\text{-}\text{Ke}$ ; two elasson:  $\Pi\alpha\text{-Bou}$ ,  $\text{Ke-Z}\omega$ ; and two elachistos tones:  $\text{Bou}\text{-}\Gamma\alpha$ ,  $\text{N}\eta\text{-}\Pi\alpha$ . These intervals or tones, according to their size, have certain small musical subdivisions, which are called moria or kommata.

The three Byzantine teachers, who, in the year 1814, brought the Byzantine notation from the old to the new script, defined the meizon tones as being comprised of twelve moria, the elasson nine, and the elachistos seven. The Sixth Patriarchal Conservatory School instituted by Patriarch Joachim III in the year 1881, working with more epistomonical exactness on the subject of these intervals of Byzantine music, defined the subdivision into moria to be: Meizon 12, Elasson 10, Elachistos 8; this division is also used today.

Finally, for a fuller knowledge of the meaning of the scale we generally stress, that a scale is composed of two tetrachords.<sup>14</sup>

14. Each tetrachord is composed of four chords or notes, i.e.,  $\text{N}\eta\text{-}\Gamma\alpha$ ,  $\Pi\alpha\text{-}\Delta\iota$ ,  $\text{Bou}\text{-}\text{Ke}$

From these, that which comprises the bases notes is called *base tetrachord*, and that which comprises the higher notes is called *acute tetrachord*. For example, in the natural diatonic scale the base tetrachord is the Ηη-Γα and the acute is Δι-Ηη. The interval, which separates the two tetrachords, or the interval Γα-Δι, remain. This, because of its role, is called the separating interval or dividing tone; it is a meizon in all the scales, i.e., it is composed of twelve moria. If we are careful of each tetrachord of a scale we will accredit that the total number of its moria amounts to 30; thus the total number of a scale is 72, for two tetrachord of 30 each are 60, together with 12, the seperating tone: a grand total of 72.

### *Signs of Alteration*

In addition to the characters of quality and quantity, about which mention was made in the preceeding chapter, in Byzantine music there are certain signs, which change the acuteness of the natural notes toward more base or more acute. Those which lower the tonical interval are called flats (hyphesis), and those which raise the tone are called sharps (diesis). Thus, the flat is the lowering of the tonical interval by half a note. The sharp is the raising of the tonical interval by half a note.

Signs of both are: for the sharp ♫, for the flat ♭.

These signs, which add a greater grace to the hymn, are divided into simple, monograms, digrams, and trigrams. Each line adds or subtracts two moria. As the single sharp raises the tone by two moria, the monogram by four, the digram by six, and the trigram by eight.

Because of this, results the following chart of sharps and flats:

	single	monogram	digram	trigram
sharps	♯	♂	♂	♯
moria	2	4	6	8
flats	♭	♀	♀	♀

According to the above mentioned, if we place a single on an acute note of a meizon tone, for example, a flat, then we subtract two moria and from a meizon we change it to an elasson (12-2 equals 10).

If we lower the same tone by a monogrammic flat, then we

subtract four moria and we change it to an elachiston (12-4 equals 8).

If, finally, we lower it by a diagrammic flat, then we subtract six moria and change it to a meizon  $\frac{1}{2}$  tone (12-6 equals 6).

Both the signs of alteration work only on notes, on which they are placed; thus, when we see, during the course of the melody a note, originally with a sign of alteration following without it, then we will perform the first changedly, the second naturally.

## CHAPTER III

### *Concerning the Families of Music*

The families of music are one of the indispensable components of music, which together with the components comprise the expression of the tones (  $\tau\chiοc$  ), about which mention will be made later. Accordingly with the martyria of Eucleides<sup>15</sup> the ancient Greeks had three families for the diatonic, chromatic, and enharmonic, which were formed by diverse Greek peoples according to the character of each of them. These three families of the ancient Greeks were used by the church in its music, as agreeing wholly with the spirit (pneuma) and character of Christianity.

Of these, the diatonic family follows the so-called entire (diapason)<sup>16</sup> scale, which is constituted of two like tetrachords which are separated.

The chromatic family has two scales; one for the Second Tone (  $\tau\chiοc$  ) and one for the Plague of the Second Tone, or Second Plagal. Each of these is comprised, similarly, from two separated tetrachords, but the chromatic, as we shall see.

The enharmonic family is distinguished by the scale, which has

15. One of the seven ancient Greek musicians. He was born in Alexandria, Egypt, or according to others in a city called Gela of Sicilia. He reigned high 322-300 B.C. He was a mathematician and famous musician called the Father of Geometry and taught mathematics in the renowned School of Alexandria. In his various writings are saved some things concerning Music, in which the "Introduction to Harmony" where he talks of chords of three families.

16. It contains all the chords or notes of the scale, i.e.



third and fourth moria.<sup>17</sup> The enharmonic scale has, likewise, two separated tetrachords, each of which has, as the others, three tones.

These three families, as we have stated, were used in the Church by the arrangement of the holy art of St. John Damascene.

Because of this it is easily understood that in order for a tone to be formed, indispensably, it must be based on the tetrachord. Each tone, therefore, has its own tetrachord, which undergoes certain special subdivisions. Some of the tones, however, have some relation in light of their tetrachords. These tones which comprise a relative group create the family, which, consequently, is dependent upon the division of the tetrachord.

Likewise, as a result of all these things mentioned if it results that a family is a total of tones, which have this or a relative division of tetrachord. Analogous with the division of those tetra-chord, the three families came about, as we have described above.

### *Generally Concerning the Tones ( Ἡχῶν )*

The music of the ancient Greeks is distinguished by the numerous types of its melodies. Of these, the Eastern Orthodox Church chose only eight, to which they gave the definite form under the name "Tone". From that time they were saved, preserved and conveyed to the ones later under this beautiful name. The fundamental therefore, law of Byzantine Ecclesiastical Music remained in eight tones, which Bishop Mediolanus Ambrosius and afterward Gregory the Dialogue used.

Of these, the first consecrated the names of the first four tones as: First, Second, Third, and Fourth; the latter completed these by other related names using the term Plagius. Thus there resulted: plagius of the First, plagius of the Second, Baris<sup>18</sup> and plagius of the Fourth. These eight tones are divided into two: 1) into majors, which are the first four and 2) into the plagius, which are the remaining.

Between the major and the plagius tones there is an immediate relation, for each major tone has its plagius. The basis of the major

17. The more intricate subdivision in Byzantine Music, which because of its minuteness cannot be performed by the human voice: therefore, the enharmonic family was preserved under the guise of the diatonic family.

18. It was called baris and not Plagius of the Third for it has, as we shall see, the lower scale of all the tones.

and the plagiis tones abstains from four notes and one tetratone; in European music from one to the fifth note. In order to find, for example, the basis of a plagal tone descends one tetratone of the basis of the major tone. For example, the first tone had, in olden times, as a basis Κε. If we descend from this one tetratone (fifth clear) then we will find the basis of the Plagiis of the First Tone the Πα.

An exception to this rule is the Baris Tone, for it has as its basis similar to its major, the Third, or: Γα. Because of this it was not called the Plagiis of the Third, but Baris, as already stated.

### *Concerning the Phthorai*

Because, many times, the melody as sweet as it is causes an unfavorable impression, because of its repetition, the musicians perceived certain signs, which can change the course of the chanted hymn; this led from tone to tone and from family to family. This change is brought about by the perceived sign, which, exactly, because of change and destruction of the melody, were called phthorai.

Hence, phthorai are signs, through which we jump from tone to tone and from family to family (γένος).

If, for example, we chant a hymn belonging to the Plagiis of the Fourth Tone and during the course of the melody, we wish to use the Second Tone, then we place the phthora of the Second Tone and continue chanting with the intervals (diastimata) of the Second Tone. Because indispensably we must return to the original tone, whence came the melody, i.e., the Plagiis of the Fourth, then we place one of the Phthoras of this tone, and thus return.

Each family, as it has its own martyria, thusly has also its own phthorai.

The phthorai in use are 13; of which eight belong to the diatonic family, four to the chromatic, and one to the enharmonic.

The diatonic phthorai are the following:

Νη	Πα	Βου	Γα	Δι	Κε	Ζω	Νη
∅	∅	∅	∅	∅	∅	∅	∅

The chromatic phthorai are the following:

1. of the Second Tone Δι  
∅
2. of the Second Plagal Πα  
∅

The enharmonic phthora is one  $\text{φ}$ . This is placed on Ζω and always places it in a constant flat.

What is the position of the Phthorai? We must place the phthorai, because of order and style, in certain position beneath or above the characters. Thus when, during the performance of the melody, we ascend, the phthorai, usually are placed beneath the

characters of quantity, for example: 



; when we descend, they are placed above,

for example:

Finally, since we must go from one tone to another by some phthora, this must be placed on the natural note of the base of the tone, to which we wish to go. It happens, however, many times, that the phthora is placed on another note, adjacent, or next to the cord. This in Byzantine Music is called paracord. If, for example, we chant a hymn of the First Tone and we wish to go to the Plagius of the Second Tone, then we must place the phthora of the Plagius of the Second Tone on the note Πα, which is its base. Many times, however, it happens that the phthora is placed on Βου, which is adjacent to Πα (paracord).

Paracord, therefore, is the position of the phthora not on the natural note of the base of the tone, but on another next to it.

#### *Concerning the Chroai*

The chroai are certain signs, which, used during the course of a melody, affect only certain notes, changing them.

The chroai, because of their subtlety, came about through special attention and care by the ancient Greeks and by all the great musicians of the pro-Christian era.

Thus, the famous mathematician Claudius the Ptolemaios succeeding in defining eight chroai, to which he gave special attention.

Of these eight, during the centuries when the ecclesiastical Byzantine music underwent an important simplification, came about the three chroai which are used today: a) the zygos  $\text{φ}$  b) the spa-

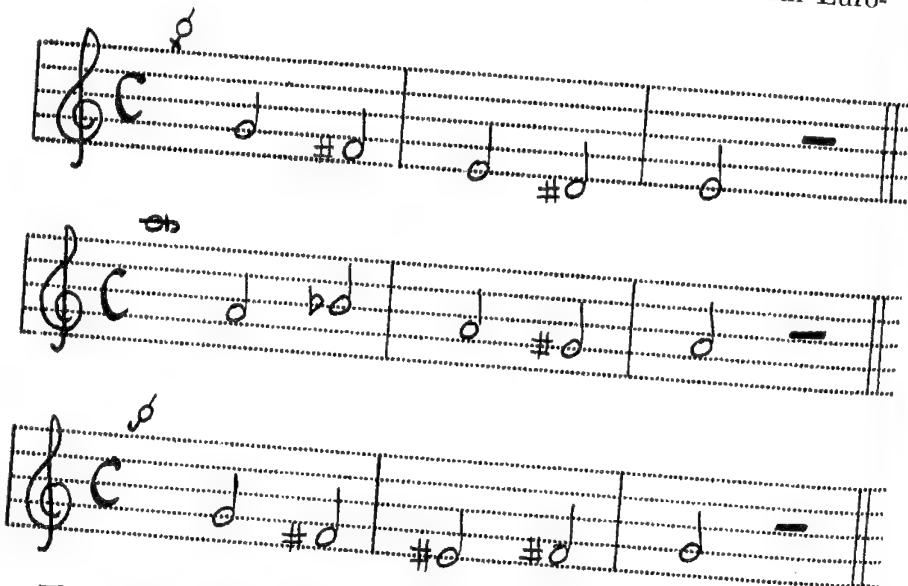
thi  $\Theta$ , and c) the cliton  $\phi$ .

The zygos is always placed on the note  $\Delta_t$  and affects the three descending characters or  $\Gamma\alpha$  is sharpened,  $Bou$  natural and  $\Pi\alpha$  is sharpened.

The spathi is always placed on  $K\epsilon$  and affects the two adjacent characters, or the immediate ascending and the immediate descending. It wants, i.e., the note  $Z\omega$  flattened and  $\Delta_t$  sharpened. In exception, the spathi can be placed on  $\Gamma\alpha$ , when it affects  $\Delta_t$  by a flat and  $Bou$  by a sharp.

The cliton is always placed on  $\Delta_t$  and flats both  $\Gamma\alpha$ ,  $Bou$ .

Below we have drawn an example in comparison with European music.



The chroai, as the phthorai have to be naturalized by a phthora of the tone, in which the melody is found.

Finally, between the chroai and the phthorai the following difference is found. The chroai change only certain notes, the phthorai change the entire melody and lead it from tone to tone and from family to family.

#### *Concerning the Systems*

The most indispensable element for the expression of a tone is the system, i.e., the manner through which the base of the tone is transposed either higher or lower.

Sacred music uses four such systems:

- 1) The octachordon or eptaphonon and the entire scale. It was thusly called, for in it we use all the notes of the scale. This system is used by the First Tone, Plagius of the First Tone, Plagius of the Second Tone, Plagius of the Fourth Tone from Νη, and Baris diatonic from Ζω.
- 2) The pentachordon or tetraphonon and trochos.<sup>19</sup> This is used, mainly, in the First Tone, where the base Πα is transposed five chords or four notes higher - on Κε.
- 3) The tetrachordon or triphone. This is used in the Plagius of the Fourth Tone, where a transposition of the base from Νη three notes higher or on Γα takes place, placed here by the phthora of Νη  .
- 4) The trichordon or diphone. This is found in the Fourth Tone where the base of Δι is transposed two notes lower, or on Βου. According to the tradition of the following Legetos tone, in it are sung all the rapid melodies of the Fourth Tone.

Generally in whatever system, a variety is found in them, which transposed the types of sounds to create an enjoyable impression to the sense of sound.

#### *Types of Ecclesiastical Music*

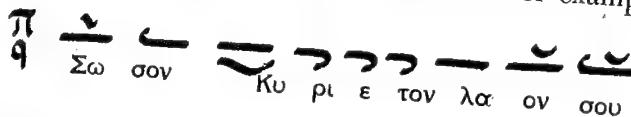
The system, of which we have talked, progresses beyond the clear boundaries of music. This is due to the fact of the great treasure of the hymns of the Greek Orthodox hymnology. The draining of the Christian truth, in the hymns, the need of the pious soul to express thanks toward the Saviour, God, of the various saints, and the praising of the name of the Creator, God, and of the Theotokos, constituted, besides the others, the basis of the inspiration of the Christian poets.

This great power of ecclesiastical hymns had to be combined

19. Being called a trochos we mean a circle, which by the diverse physical and artistic forces combined it returns. Thus, by the trochos, we mean the system of three connected pentachords, of which the more important is Πα-Κε. We must ascend to Κε, place on it the phthora of Πα  and thus ascend using the notes Πα, Βου, Γα, Δι, Κε instead of Κε Ζω, Νη, Πα, Βου; we must descent to Πα, place the phthora of Κε  on it and descend using the notes Κε, Δι, Γα, Βου, Πα instead of Πα, Νη, Ζω, Κε, Δι. This cycle of intervals constituted the trochos musical system, which the ancient Greeks used greatly.

according to the best manner, i.e., to say, it had to move man's heart. Because of this, the attention of the hymnographers and melodes of our church returned to the outward rhythm of the hymnologies. Throughout the suitable system, they divided the melodies accordingly with their rhythmical beats. And they composed others of them with a more rapid metre, others with a slower metre, and still others with a very slow metre. Because of this, three types of ecclesiastical melodies came about. The Eirmologica, the Stichirarica, and Papadica.

- a) The Eirmologica are the faster melodies, in which each syllable corresponds usually to a note. For example:



(9 syllables, 9 notes). They are called eirmologica, for in the type belong the eirmoi<sup>20</sup> of the canons, i.e., the faster melodies of holy music. Also, the eirmological melodies are the faster Kekragaria, and the Pasapnoaria with the verse, the Aposticha, and faster Doxologies, the Apolytikia, the Kathismata, Kontakia, etc.

- b) The Stichirarica are the slower melodies, in which each syllable frequently corresponds to two or three notes. They were called stichirarica, for in most of them, as in the Aposticha, verses preceed. Such are the slower Kekragaria and Pasapnoaria with their verses, the slower Doxologies, the Idiomela, and the slower Doxastika.  
 c) Papadica, are the very slow melodies of holy music, where each syllable corresponds to an entire musical phrase. They are called papadica, for when we chant them, the priest recites various prayers. Such are the Cheroubika, Koinonika, and divergent other slow melodies.

20. Eirmos is the rhythmical syntax of a hymn by a certain manner, which by some type, interlaces the attendance of the other Troparia rhythmically alike. It comes from the verb εἴρω, which means, mainly, to interlace, since the Eirmos also according to order and melody is interlaced. Likewise, by the verb εἴρω is also meant the derivation or like-form, which the Troparia following the Eirmos must have. This is certified by the strict coherence of the Troparia of a canon to the Eirmos, which they follow line by line, syllable by syllable, and accent by accent.

## CHAPTER IV

### *Martyria of the Tones<sup>21</sup>*

In the second chapter, we discussed the martyria of the notes, i.e., those signs, which confess the name of each note.

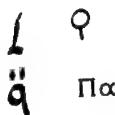
This also happens here. In order to chant a melody we must indispensably know the base, from which we will start, and also the tone and family in which the tone belongs.

All these are shown by certain signs, which are placed at the beginning of each melody. Since they confess the form of the tone, they are called martyria of the tones. The martyria of the tones are correspondent to the keys of European music and to the armament of the scales. The martyria of the tones are comprised of: 1) the word "tone", 2) the martyrical signs, 3) the note of the base; and 4) the phthora, through which the family is known.

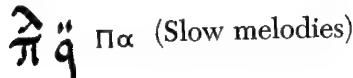
In the comparison of the martyria of the tones, we follow the signs of the families:

a) Diatonic family

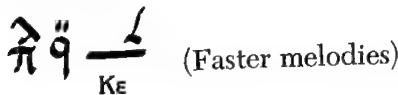
(First)



(First Plagal)

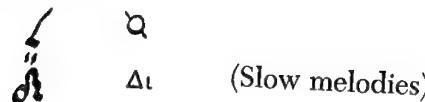


(First Plagal)

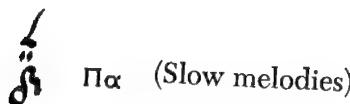


21. The martyria of the tones are different from the martyria of the notes, i.e. the martyria of the tones confess the tone and are placed only at the beginning of the melody; the martyria of the notes confess the one note and are placed on many signs during the course of the melody.

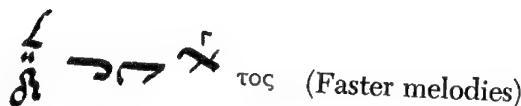
(Fourth)



(Fourth)



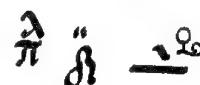
(Fourth)



(Fourth Plagal)



(Fourth Plagal)



b) Chromatic Family

(Second)

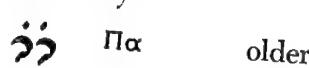


(Second Plagal)



c) Enharmonic Family

(Third)



older



(Baris)



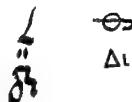
(Baris)  Ζω (Baris diatonic)

(Baris)  Ζω  (Baris diatonic heptaphonos)

(Baris)  Ζω  (Baris enharmonic)

(Baris) 

d) Borrowed tones  
(Fourth with Second)



Δι

or  
  


(Fourth with Second Plagal)  
 Δι (Nenano)

or  
  


(Second with Second Plagal)  
 Bou

(Second Plagal with Second)  
  
 Bou 

### *Components of the Tones*

Each tone in Byzantine music has certain elements, through which it is distinguished from another tone.

These signs are called components, for they introduce the tone. The components of the tones amount to four:

- 1) The apichima, is a small musical phrase, which is sung in the beginning of the melody; it is used as an introduction to the tone, as if it were readying it.

In more ancient times, the apichima was polysyllabic, for the notes were polysyllabic (ananes, aneanes, necheanes, nana, hagia etc.)

Today the polysyllabic apichimata were forgotten, substituted by the monosyllabic Νε, excepting one, the "hagia" which is used today in the slow melodies of the Fourth Tone.

- 2) The scale. This, as we already know, is a continuous order of notes or chords. Each tone has its own scale, which is divided into two tetrachords: the lower and higher.
- 3) The dominating notes. These are those notes which are heard more often within the melody and consequently they dominate, while the remaining notes are heard less often and are called hyperbasimi.<sup>22</sup>
- 4) Endings, are the end of each phrase of the entire melody. These, according to the position they hold in the melody, are divided into three categories: unending, ending with, and final endings.
  - a) Unending are those endings which happen during the course of the melody and on one of the dominating notes.
  - b) Ending with are those which happen during the course of the melody and on the base note.
  - c) Final endings are those which happen on the base note, but at the end of the melody.

### *Peculiarities of the Tones*

Each tone has certain peculiarities, which aid it in being heard

22. From the verb often.

Ὄπερ-θαίνω which mean I omit, I do not listen, very

with greater enjoyment by the audience. This oddity in the musical language is called *idiom*. As an example we bring forth the Second Plagal Tone, which in the higher tetrachord dismisses, many times, its chromatic character and works diatonically.

Likewise, during the melody, certain notes are found, which attract toward them nearer notes. This attempt is called helxis; it is one of the more important oddities of the tones.

Signs, through which this helxis works are the sharps and flats. We bring forth certain examples of helxis toward a deeper understanding of them.

In almost all the diatonic tones, the note Ζω is usually attracted from Κε. Likewise, in the Fourth Tone Παξ is attracted from its higher notes Βου, and Γα is attracted from Δι.

The richness of the meanings and the depth of the subject of the Orthodox hymnology led the experts into the finer meaning of the helxis and in general the peculiarities, toward their more effective expression.

### Borrowed Melodies<sup>23</sup>

The borrowed melodies also came about from delicate melodies of Byzantine music. Thusly, while, for example, in one hymn the elements of the tone are recorded, in which the melody belongs, it is chanted, however, with the base of another tone placed by its phthora. The borrowed melodies there are:

- a) In the First Tone, and in its melodies, which are called kathismata<sup>24</sup> some are found under the title «Τὸν τάφον Σου Σωτῆρ». , which are chanted with the base of the Second Tone, placed by the phthora of the Second tone —Θ—, on Κε, of the old base of the tone and not on Δι. It is intended, simultaneously, for parachord.

- b) In the Second Tone, many of the eirmologica melodies of this tone are sung with the base of the Second Plagal and in antithesis the corresponding melodies of the Second

23. This word is derived from the verb ἐπί - εἰσάγω=ἐπεισάγω . It means an entrance into another circuit or territory.

24. They came from the kathismata of the Old Testament, which were read at the beginning of the Matins. Today instead of these, certain hymns are chanted, which received their name, of the seated faithful while they are chanted.

## Plagal with the base of the Second Tone.

- c) In the Fourth Tone we have two types of borrowed melodies. Others of them use the Second Tone and other the Second Plagal. Concretely, with the base of the Second Tone the «Θεός Κύριος» the Anastasimon apolytikion

«Τὸ φαιδρὸν τῆς ἀναστάσεως», the kathismata «ἀναβλέψασαι τοῦ τάφου τὴν εἰσοδον» and other troparia are sung.

With the base of the Second Plagal, Δι, are sung the famous kathismata «Κατεπλάγη Ἰωσήφ», «Κατεπλάγησαν ἀγνῆ πάντες ἄγγελων οἱ Χοροί», of which mention will be made later.

## Concerning Each Tone

After an examination of the tones generally, we come to examine separately, each of the tones, or their theory, which comprises their systems.

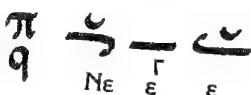
Toward a more explicit and easy examination, we have arranged the division according to family.

### Tones of the Diatonic Family

#### First Tone

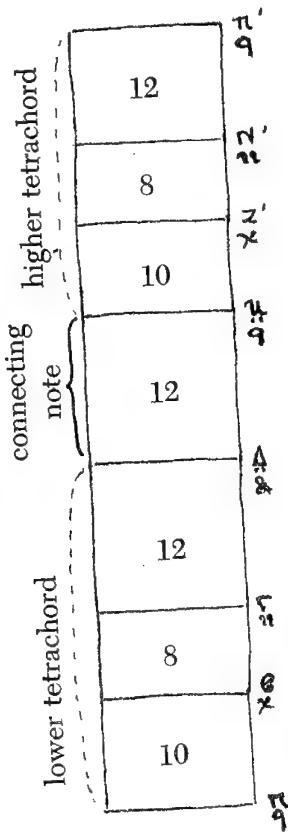
This tone has the following components. the base, the apichima, the scale, the dominating notes, the endings, the systems, the peculiarities, the phthorai, the martyria, and the borrowed melodies.

- The base: the First Tone has as its base in all its melodies the note Πα.
- The apichima: this constitutes the introduction of the tone and is composed of the monosyllabic word Νε, thusly:



- The scale: this tone uses the diatonic scale from Πα. It is made of two like tetrachords, the lower and higher. These compare in content and in order of notes, or proceed by an elasson diastima, elachiston and meizon (10, 8, 12) and are divided from each other by the connecting diastima, which is always a meizon (12).

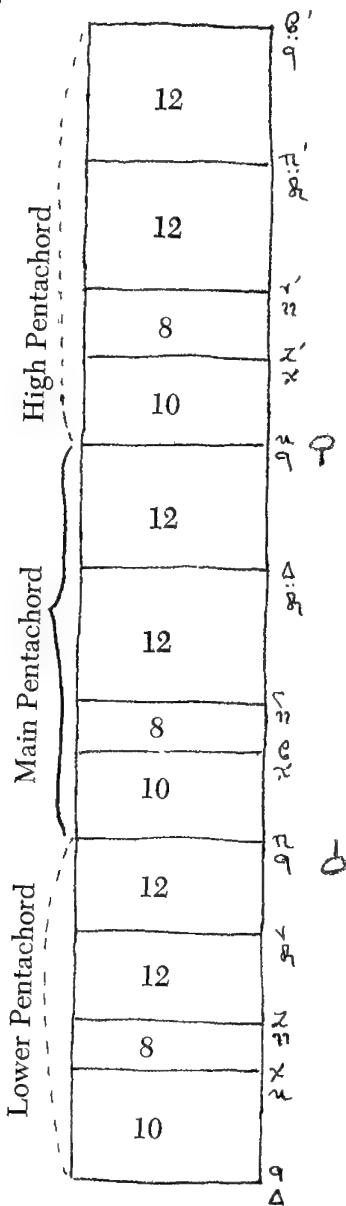
All the above are recapitulated in the following diagram:



- d) The dominating notes: The First Tone has dominating notes:
  - 1) in the stichirarica and papadica melodies Πα, Γα,
  - 2) in the eirmologica melodies Πα, Δι .
- e) The endings: 1) in the stichirarica and papadica melodies: unending on Γα , ending within and final ending on Πα; 2) in the eirmologica: unending on Δι , ending within and final ending on Πα .
- f) The systems: The First Tone uses three systems: 1) the diapason (entirety), when as a base, it has Πα and uses the entire scale or  $\overline{\text{Π}} \dots \overline{\text{Π}}$ ; 2) the tetraphone, when it has a base Κε , i.e., when the base is placed

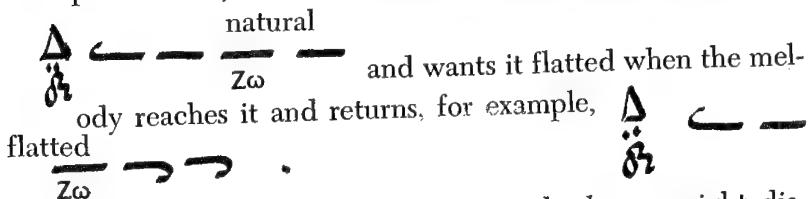
four notes higher; 3) the "kata ton trochon". In the chapter concerning the systems we brought forth the accented in a cycle, that is the system of three connected pentachords, of which the most important is Πα-Κε and that on the Κε was placed the phthora of Πα and vice-versa which created an entire cycle.

Here, for a fuller understanding of this we have drawn the following diagram:



If we pay heed to the diagram of the cycle, we will understand that the intervals of the three connected pentachords are similar, proceeding by diastimata elassons, elachistons, and meizons. This is achieved by the phthoras of Πα and Κε, which are placed by an inverse manner.

- g) The peculiarities: the First Tone always has the Ζω changing and not stationary, as happens in the Fourth Plagal Tone. Thus, it wants it natural when the melody proceeds beyond it, approaching Νη, for example:



- h) The phthorai: the First Tone uses the known eight diatonic phthorai.

- i) The Martyria: likewise it uses the eight diatonic martyria.  
j) The borrowed melody. The borrowed melodies in the First Tone are the kathismata «Τὸν τάφον Σου Σωτήρ», which are sung with the base of the Second Tone of Κε.

The First Tone was called by the ancient Greeks *Dorios*, for it was brought by the Dorians and was taught by them.

The First Tone is distinguished by its axiomatic, magnificent, happy and earthly character.

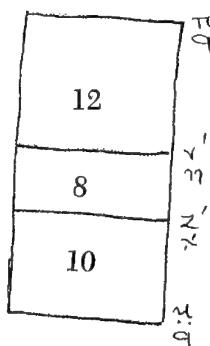
### *First Plagal Tone*

This tone has the following components: the base, the apichima, the scale, the dominating notes, the endings, the peculiarities, the phthorai, and the martyria.

- a) The base: this tone on the stichirarica and papadica melodies has as its base Πα; in the eirmologica it has as a base Κε.  
b) The apichima: this is similar to the base, i.e., in the stichirarica and papadica melodies, it has as an apichima the monosyllabic word Νε on Πα and in the eirmologia likewise, with the word Νε on Κε.

c) The scale: the stichararica and papadica melodies are similar in scale to the First Tone, i.e., it has as a base Πα and wants Ζω usually flattened. The eirmologica melodies, however, use the higher tetrachord Κε-Πα with Ζω natural.

Many times the phthora of Πα ♪ is placed on Κε and thus we ascend from ( Πα (Πα, Βου, Γα, Δι, instead Κε, Ζω, Νη, Πα ) as happens in certain hymns of the Orthodox Church.



d) Dominating notes: in the stichirarica and papadica melodies the dominating notes are Πα, Δι, Κε ; in the eirmologica Κε, Νη.

3) Endings: in the stichirarica and papidica melodies the endings are: unending Δι, Κε ; ending within Πα , and final ending Πα -sometimes the final ending is Δι . In the eirmologica melodies: unending Νη, ending within and final endings on Κε .

f) Peculiarities: many times in the melodies of this tone, those having the base Πα , use the base Κε , when the equal (ison) is transferred from Πα to Κε . Then the Ζω is natural, Γα is attracted from Δι . However, when the melody returns to the lower tetrachord, then the base will be Πα , the Ζω will receive its flat, and Γα will be performed naturally.

g) Phthotai: as the First Tone uses the diatonic phthorai with the additional enharmonic phthora ♪ , which is placed on Ζω and flats it; this is also true of this tone.

h) Martyria: likewise the same, diatonic.

The ancient Greeks called the First Plagal Tone Hyperdorios, as derived from the First (Dorian). It is distinguished by its merciful, stimulating, and dancing-like character.

#### Fourth Tone

This tone has, as all the remaining, the well-known components the base, the apichima, the dominating notes, the endings, the peculiarities, and the borrowed melodies.

a) The bases of the Fourth Tone are three. In the rather slow melodies (papadica) it has as its base Δι, using as an apichima the word "hagia". In the quicker melodies (stichirarica) it has its base as Πα; and for the even faster melodies (eirmologica) it has its base as Βου.

b) The apichima of this tone is connected with its bases thusly: (1) in the papadica its apichima is



. It works in the diatonic high tetrachord Δι, Κε, Ζω, Νη. Its dominating notes are

Δι, Ζω, Βου; the endings: unending Βου, Ζω, Δι, and the ending within and final endings Δι. Its peculiarities: a) the tone Δι-Κε is a meizon and with the Κε raised higher; b) usually Ζω is natural, when the melody circulates around Ζω the Κε is attracted toward Ζω, its receives, i.e., to say, a sharp; c) at the end of each melody (endings) Γα is attracted from Δι .

(2) In the stichirarica the apichima of this tone is on Πα. The dominating notes are Πα, Βου, Δι; the endings: unending Δι, Πα; ending within and final endings Βου .

c) Peculiarities: (1) when the melody circulates around Βου then Πα is attracted toward Βου . (2) in the papadica melodies, usually, Γα is attracted toward Δι . (3) Ζω is natural when the melody proceeds beyond it and is flat when the melody reaches it and returns, as happens exactly in the First Tone.

d) Borrowed melodies: this tone has two types of borrowed melodies. Of these, some are sung with their base of the Second Tone, as the chant «Αγιος δ Θεός», sung during the carrying around of the epitaphion; others are sung with their base of the Second Plagal, as the kathismata, «Κατεπλάγη Ἰωσήφ» and «Δεῦτε θωμεν πιστοὶ ποὺ ἔγεννήθη δ Χριστός».

The ancient Greeks called the Fourth Tone *Mixolydian*. They attribute its discovery to the Lesbian musician Sappho. It is distinguished by its festive, dance-like and joyous character.

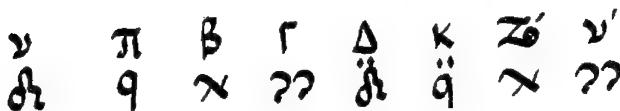
#### *Fourth Plagal Tone*

The components of this tone are the base, the apichima, the scale, the dominating notes, the endings, the peculiarities, the systems, and the martyria.

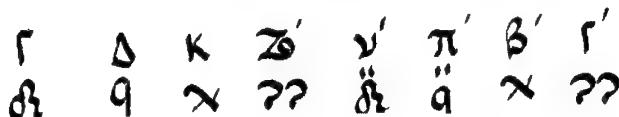
- a) The base of this tone, which is the last in the line of the Eight Tone, is two-fold, Νη, Γα.
- b) The apichima through the monosyllabic word Νε is on the bases Νη, Γα.
- c) The scale. It uses the natural diatonic scale, about which mention was made in the preceding chapter.
- d) The dominating notes are Νη, Βου, Δι.
- e) The endings are: unending on Βου, Δι, ending within and final endings on Νη.
- f) Peculiarities: Πα is attracted toward Βου when the melody circulates around Βου. Ζω is sometimes natural and sometimes flattened, as in all the tones of the diatonic family, or the First, First Plagal, Fourth, and Fourth Plagal.
- g) Systems. This tone uses two systems: 1) the entirety and 2) the triphone. Of these the first has as its base Νη, the second has as its base Γα; i.e., the base is transferred three notes higher, on Γα, on which is placed the phthora of Νη ~~πα~~ Ζω. Accordingly with the canons of the phthora, since the phthora of Νη is placed on Γα then the intervals follow the order of Νη. Most of the eir-

mologica melodies of the Fourth Plagal Tone use this triphone system.

- h) Phthorai: diatonic.
- i) Martyria: in both the systems the diatonic martyria are used.
- j) Martyria: 1) of the entirety system:



- 2) of the triphone system:



- k) Dominating notes of the triphone system Γα, Δι Ζω.
- l) Endings of the triphone system: 1) unending Δι, 2) ending within and finals Γα .

The ancient Greeks called the Fourth Plagal Tone "Hypomixolydian" as taken from the Fourth Tone (Mixolydian). The humble style, the appeasing, the sufferings distinguish this tone.

Finally, this tone was used as a base of the European four-part harmony.

### *Tones of the Chromatic Family*

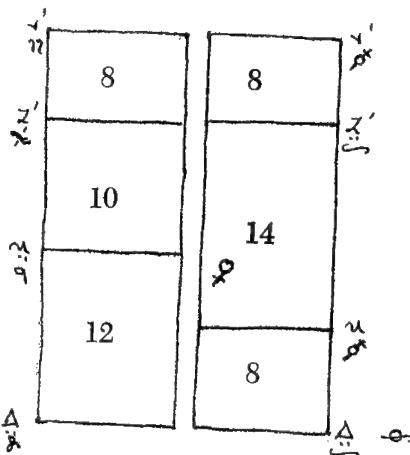
#### *Second Tone*

The Second Tone also has the same components as the above-mentioned tones.

- a) The base. As the base this tone has Δι .
- b) The apichima. The monosyllabic apichima of Νε is used on the base, or Δι .
- c) The scale. It uses the chromatic scale, based mainly on the tetrachord Δι-Νη. This tetrachord comes from the diatonic a monographic flat is placed on Κε . We know that the monographic flat lowers the note by four pieces or moria; likewise, Κε being lowered by four moria is a

meizon tone, Δι-Κε elachiston, for 12 - 4 equals 8. The subtracted four moria, however, from the tone Δι-Κε are added to the tone Κε-Ζω, which from an elasson becomes a hypermeizon, thusly: 10 + 4 equals 14.

Therefore the derived chromatic tetrachord of the Second tone Δι-Νη is constituted of an elachiston tone, a hypermeizon, and an elachiston.



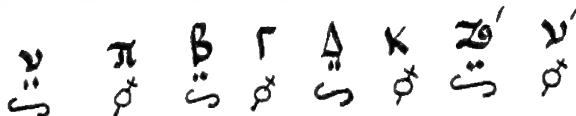
d) Dominating notes:

e) Endings: unending on Βου, ending within and final endings on Δι.

f) Peculiarities. The Second Tone has certain oddities, which give special splendour to the ear. 1) The note Γα is attracted from Δι, when the melody circulates around Δι (its base). 2) The note Ζω is always natural. 3) When this tone descends to the lower tetrachord, then it uses two scales, the diatonic and the chromatic. It is diatonic when it reaches Πα and returns; chromatic when it descends below Πα to Νη, when, in such a case, Πα is flattened.

g) Phthorai. The Second Tone has two phthorai: one for the note Δι and one for the note Νη.

h) Martyria. It uses only two martyrical signs, which are alternated. Those are and .



i) Borrowed Melodies. This tone changes its base with the Second Plagal Tone in most of its eirmologica melodies. Thus **Bou** of the Second Tone becomes **Πα** of the Second Plagal Tone; the martyrical signs are those of the Second Plagal Tone

(Πα = and Δι = ).

This happens in relation to the dominating notes and the endings.

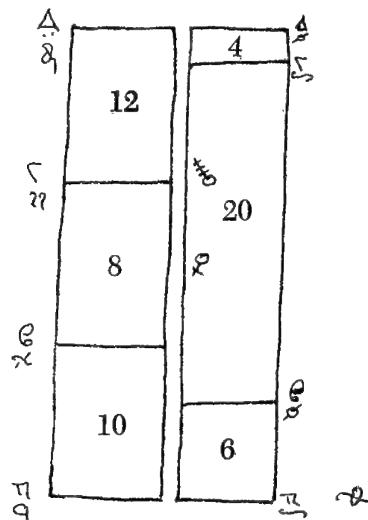
This tone was called Lydian by the ancient Greeks, for it came from the City of Lydia. First, Alkman, who was born in the city of Sardes of Lydia and reached his apex in 670 B.C., taught it. This tone is distinguished by its moving, languid, and graceful character.

#### *Plagius of the Second Tone*

This tone, as the rest has its components.

- Base. As its base it has Πα.
- Apichima. Likewise, the apichima Νε is chanted on Πα.
- Scale. Although the Plagius of the Second Tone, belongs to the chromatic family, as does the Second, there is a great difference, however, between the two scale of the related tones, for the scale of the Second Tone proceeds in descent both when it ascends and descends; it is comprised, i.e., of an elachiston tone, a hypermeizon, and an elachiston; while the scale of the Second Plagal Tone is made up of two like chromatic tetrachords. Of these two tetrachords, the more important is Πα-Δι which is formed from a diatonic tetrachord and on Bou is a monogram flat and a trigram sharp on Γα. Thus, the monogram flat on Bou lowers it by four moria, when the elasson tone Πα-Bou becomes a half-tone (10 - 4 equals 6). On the other hand, the trigram sharp heightens Γα by eight moria; thus the meizon tone Γα-Δι

becomes a half-tone and lowered (12 - 8 equals 4). Finally, as the subtracted four moria from the tone Πα-Βου and as the subtracted eight moria from the tone Γα-Δι are added to the elasson tone (8) Βου-Γα and make this a trihemitonion and heightened (4 + 8 + 8 equals 20). Therefore, we have an interval larger than the trihemitonion by two moria.

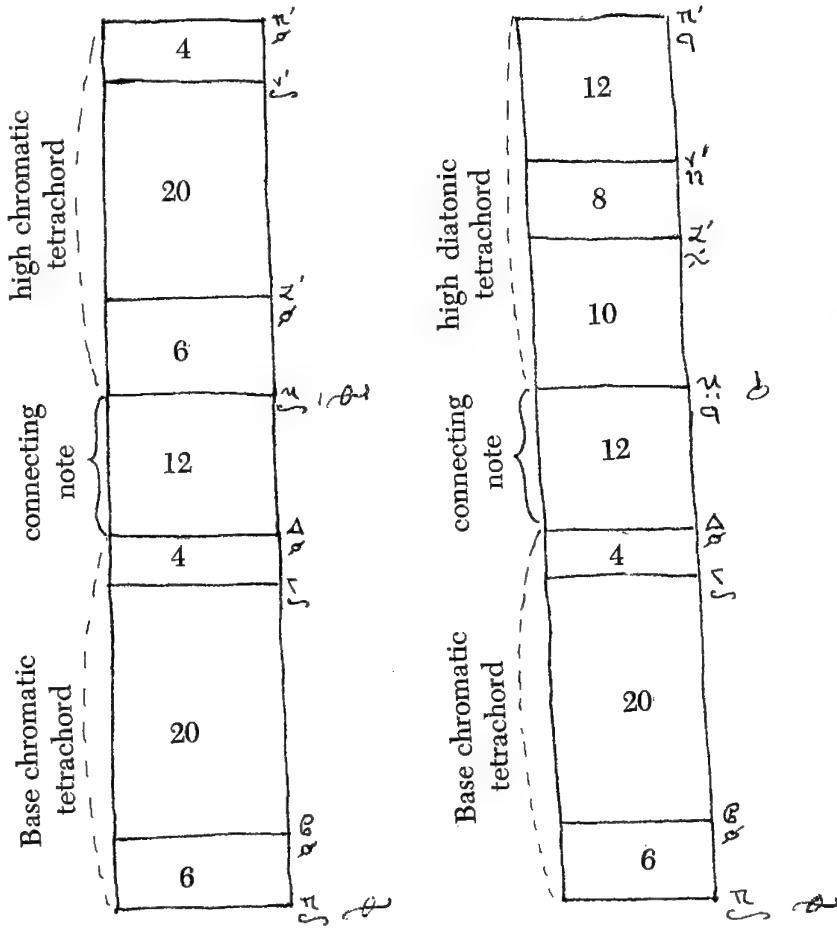


- d) Dominating notes: Πα, Δι.
- e) Endings: unending on Δι, ending within and final endings on Πα. Final endings toward a pause<sup>25</sup> end on Δι.
- f) Peculiarities. The main oddity in this tone is that, naturally, the high tetrachord works diatonically. Then the so-called mixed scale is created, of which the upper tetrachord Κε-Πα is diatonic and the lower tetrachord Πα-Δι is chromatic in antithesis toward the unmixed chromatic scale, of which both the tetrachords are chromatically separated from each other by the meizon connecting tone Δι-Κε.

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25. They are called final toward a pause, for after the hymn follows a petition by the Priest.

Below we have drawn a diagram of both scales:



- g) Borrowed melodies. This tone in the faster melodies uses the base of the Second Tone, when it has: 1) dominating notes: Βου, Δι and 2) endings: unending on Δι, ending within and final endings on Βου .
- h) Nenano. The Second Plagal Tone in addition to its main base Πα, has also another base Δι, with which are sung most of its hymns. This type maintains its ancient name Nanano. Likewise it is called the Palace Melody, for the Byzantine autocrats, because of a special love which they had for this, called to the palace the chantors in order to chant the hymns and melodies with this base.

- i) Phthorai. It has only two phthorai, as does the Second Tone, the  $\Theta$  for  $\Pi\alpha$  and  $\wp$  for  $\Delta\iota$ .
- j) Martyria. Likewise the martyria are two, which are alternated.



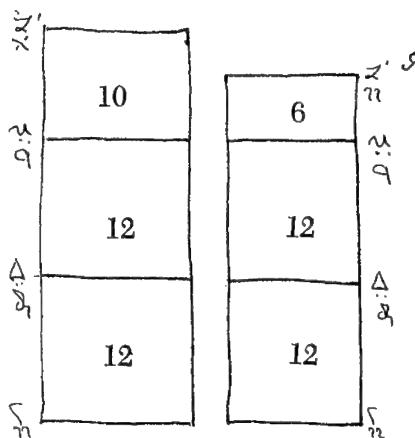
The Second Plagal Tone was called Hypolydian by the ancient Greeks, as derived from the Second Tone. It is distinguished by its funeral-like character and in general its sorrowful tone.

### *Tones of the Enharmonic Family*

#### *Third Tone*

The third tone is comprised of:

- a) a base which is  $\Gamma\alpha$ .
- b) The apichima, which is similar to its base.
- c) The scale. This is based mainly on the tetrachord  $\Gamma\alpha - \text{Z}\omega$ ; this is the diatonic tetrachord with the difference that a monogram flat is added on  $\text{Z}\omega$ . This monogrammatic flat lowers  $\text{Z}\omega$  by four moria; thus the elasson tone  $\text{K}\epsilon\text{-Z}\omega$  becomes half-tone (10 - 4 equals 6).



- d) Dominating notes:  $\Gamma\alpha$ ,  $\text{K}\epsilon$ ,  $\Pi\alpha$ .
- e) Endings. Unending  $\text{K}\epsilon$ , ending within  $\Pi\alpha$ , and final endings  $\Gamma\alpha$ .

f) Peculiarities:

- 1) Γα attracts Βου .
- 2) The Third Tone when it abandons its tetrachord, ie.e, it is extended beyond Ζω, then it proceeds diatonically.
- 3) In the slow melodies (Papadica) it uses the triphone system of the Fourth Plagal Tone, the phthora of Νη

 placed on Γα .

- g) Phthorai. It has only one phthora, the enharmonic Ρ , which is placed on Ζω and wants it as a continuous flat. Sometimes it is placed on Γα with an analogous influence.

The Third Tone uses also two other phthorical signs, the continuous sharp δ and the continuous flat ♭ . The first is placed on Γα and works on Βου , which it makes higher, or with a sharp. The second is placed on Κε and works on Ζω, which it makes lower, or with a flat.

- h) Martyria. It uses the martyria of the diatonic family, except the martyria of Ζω , which influenced from the enharmonic phthora placed on it is written  .

The Third Tone was called by our ancestors Phrygian, for Marcien<sup>26</sup> brought it from Phrygia. It is distinguished by its arrogance, bravery, and mature air.

*Barys Tone*

- a) Bases. The seventh in line of the tones of Ecclesiastical Byzantine Music has three bases: 1) Γα , 2) Ζω natural or diatonic, when it is called Barys diatonic from Ζω and 3) Ζω flattened, when it is called Bares enharmonic from flattened.
- 1) The Barys enharmonic from Γα .

26. He was the son of Gnadius of Phrygia. He was an excellent musician and flute player. In this is given the discovery of the manner of Phrygian music. According to the martyria of Apollodoros, he dies very tragically, "Apollo killed Marcian, hanging him from an immense fir tree, and cutting off the skin by the river, which is called Marcian because of this".

- a) Apichima has  $\Gamma\alpha$ . Base, likewise is  $\Gamma\alpha$ .
  - b) Scale. In its scale there is employment of the tetra-chord of the Third Tone  $\Gamma\alpha - Z\omega$ .
  - c) Dominating notes:  $\Gamma\alpha, \Delta\iota, Z\omega$ .
  - d) Endings: unending on  $\Delta\iota$ , ending within on  $\Gamma\alpha$  and on  $N\eta$ , and final endings on  $\Gamma\alpha$ .
  - e) Phthorai. It has one phthora, the so-called enharmonic  $\mathfrak{P}$ , this is placed usually on  $Z\omega$  and rarely on  $\Gamma\alpha$  and wants both in continuous flat.
  - f) Martyria. Those of the Third Tone.

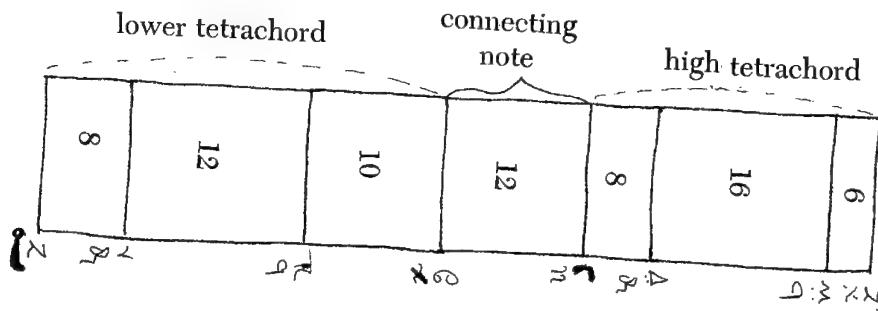
The two tones or the Third and Barys enharmonic from  $\Gamma\alpha$ , which have the same base, differ between their dominating notes and endings. Likewise, their basic difference is also in the extent of the notes of each one. Thus the Third tone is extended, mainly, to  $K\epsilon$ ; while the Barys Tone is extended to  $Z\omega$ .

- 2) Barys diatonic from  $Z\omega$ .

  - Base and Apichima. Lower natural  $\text{Z}$ .
  - Scale. The scale of this tone is altogether divergent. It is comprised of natural notes, except two employed attraction which bring about a major change in it, which render it eminently pleasurable to the ear.

These attractions work on  $\Gamma\alpha$ , which is attracted toward  $\Delta\iota$  and on  $K\epsilon$  which is attracted toward  $Z\omega$ .

According to the above-stated we present this by the following diagram:



- c) Dominating notes: Ζω, Πα, Γα, Δι.
- d) Endings: unending on Γα and Δι, ending within on Πα and Ζω, and final endings on Ζω.
- 3) Enharmonic Barys from Ζω flattened.
  - a) Base and apichima are Ζω; it is based on high Ζω.
  - b) Scale. This is composed of two like enharmonic tetrachords, or Ζω, Νη, Πα, Βου and Γα, Δι, Κε, Ζω, which are divided by the connecting tone Βου-Γα.
  - c) Dominating notes are Ζω, Δι.
  - d) Endings: unending on Ζω and Νη, ending within on high Ζω, and final endings on low Ζω.

The ancient Greeks called this tone Hypophrygian as related to its master Phrygian (Third Tone). It is distinguished by its manly character and by its strength of melody.

## CHAPTER V

### *Punctuated Gorga and Digorga*

The theme of the punctuated gorga and digorga must be considered as a continuance of the theme "concerning characters of time." However, because of its minuteness and its difficulty it was placed in the present position, for it presupposes students preseparated in the practical form of Byzantine Music, capable of perceiving easily the more difficult rhythmical subdivisions as the newly mentioned.

They are called punctuated gorga and digorga, for the employed signs are the punctuations (.), which are placed on the right or left of the signs (gorga and digorga), thusly creating their punctuation and bringing about their abridgement.

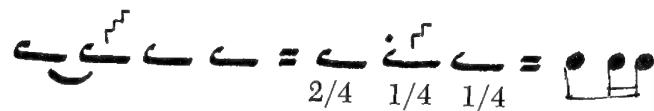
#### *Duties of the Punctuations*

- 1) An abridgement of a trigorgon on a punctuated digorgon.

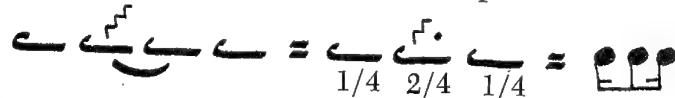
In this we have three instances, which toward a better understanding, will be compared to corresponding signs in European music.

- a) we already know that the trigorgon (  ) divides the

beat into four parts and that it is always placed on the second character (  ). However, because of the richness of the Orthodox hymnology and of its translating Byzantine Music, it remained necessary so that many of the rhythmical signs may be understood, which, performed correctly, give a special splendour to the melody. Thus, placing the punctuation mark to the left of the digorgon we have a coherence of the first and second parts:

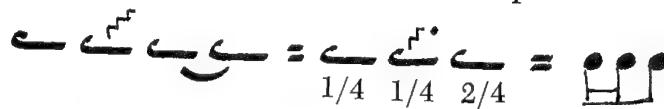


b) Combination of the second and third parts:



In this instance the punctuation mark is placed to the right of the digorgon and the weight falls on the middle character, which has 2/4 while the others have 1/2 throughout.

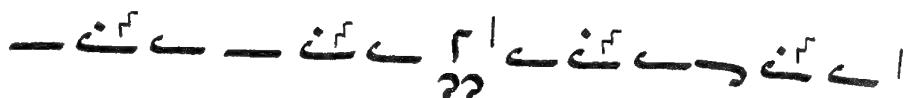
c) Combination of the third and fourth parts:

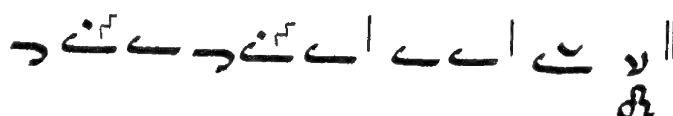


In this case, the punctuation mark is placed to the upper right of the digorgon, when the weight falls on the last character, as is made clear. Below we have placed certain examples of these three instances which have been brought forth.

a) The single is left, 

52. 





b) The single is mid  $\text{r}^{\circ} = \underline{\text{B B B}}$

53.  $\text{v} \leftarrow \text{r}^{\circ} \leftarrow - \text{r}^{\circ} \leftarrow$

$- \text{r}^{\circ} \leftarrow - \text{r}^{\circ} \leftarrow \text{r}^{\circ} | \leftarrow \text{r}^{\circ} \leftarrow - \text{r}^{\circ}$   
 $| \rightarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} | \leftarrow \text{r}^{\circ} \leftarrow \text{v} ||$

c) Single right  $\text{r}^{\circ} = \underline{\text{B B B}}$

54.  $\text{v} \leftarrow \text{r}^{\circ} \leftarrow - \text{r}^{\circ} \leftarrow$

$- \text{r}^{\circ} \leftarrow - \text{r}^{\circ} \leftarrow \text{r}^{\circ} | \leftarrow \text{r}^{\circ} \leftarrow - \text{r}^{\circ}$   
 $| \rightarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} | \leftarrow \text{r}^{\circ} \leftarrow \text{v} ||$

2) An abridgement of a trigorgon on a twice punctuated gorgon.

For the above-mentioned abridgement we have two instances.

a) The combination of the first three parts:

$\underbrace{\text{r}^{\circ} \text{r}^{\circ} \text{r}^{\circ}}_{3/4} \leftarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} = \text{r}^{\circ} \text{r}^{\circ} = \underline{\text{B B}}$

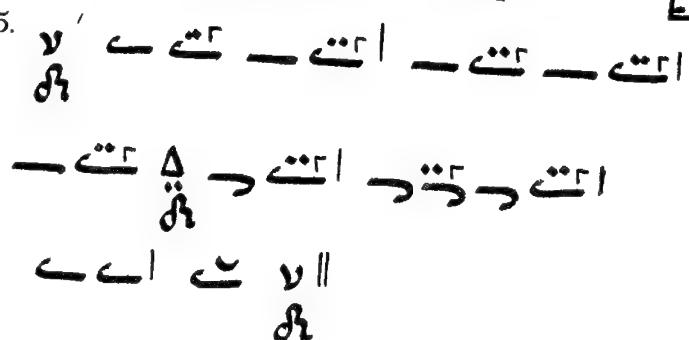
b) The combination of the last three parts:

$\text{r}^{\circ} \underbrace{\text{r}^{\circ} \text{r}^{\circ} \text{r}^{\circ}}_{1/4} \leftarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} \leftarrow \text{r}^{\circ} = \text{r}^{\circ} \text{r}^{\circ} = \underline{\text{B B}}$

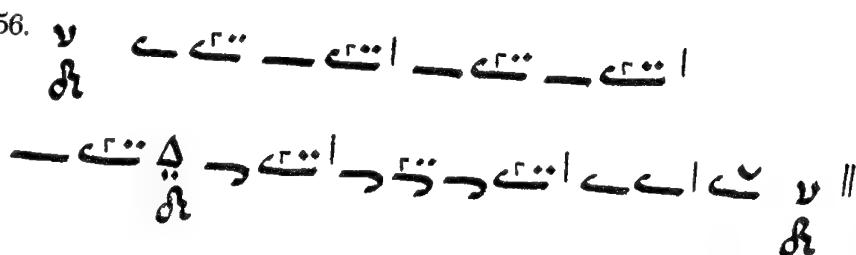
Wherefore, through the abridgement of the three first characters of the first instance, comes forth the two punctuated gorgon, which has a double punctuation to the left, when the first ison receives the 3/4 beat and the second ison receives the 1/4 beat, as exactly happens in European music  $\underline{\text{B B}}$ .

In the second instance, or, through the abridgement of the last two characters, comes forth, likewise, the two punctuated gorgon, which has a double punctuation to the right, when the second ison receives the 3/4 beat and the first ison receives the 1/4 beat, as happens in the rhythmical form of European music

55.



56.



3) Abridgement of a digorgon on a punctuated gorgon.  
Here we also have two instances:

a) The union of the first and second parts:

$$\underbrace{\underline{\underline{c}}}_{2/3} \underline{\underline{c}} = \underline{\underline{c}} \underline{\underline{c}} = \widehat{\text{P}^3\text{P}}$$

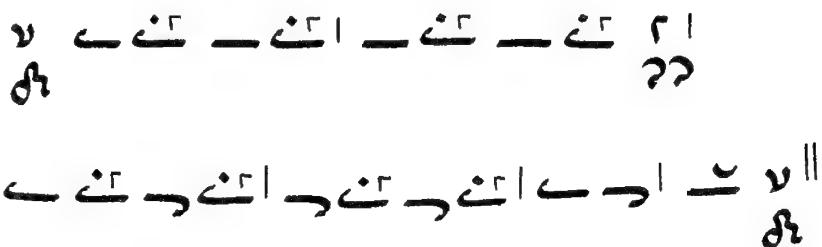
b) The union of the second and third parts:

$$\underline{\underline{c}} \underbrace{\underline{\underline{c}}}_{1/3} \underline{\underline{c}} = \underline{\underline{c}} \underbrace{\underline{\underline{c}}}_{2/3} = \widehat{\text{P}^3\text{P}}$$

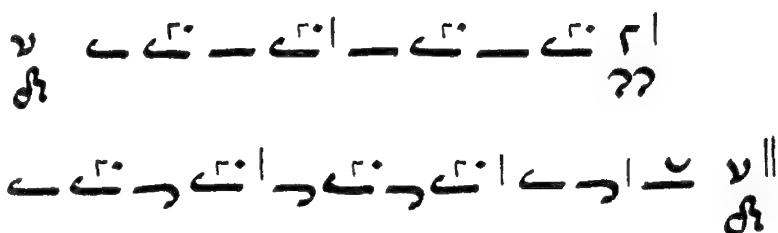
Thus, by the abridgement of the two first characters, the punctuated gorgon with the punctuation at the left comes about as in European notation: ; and by the abridgement of the two final characters, the punctuated gorgon having the single at the right comes about. European music has it thusly: .

Examples:

57.



58.



### *Concerning Concise Rhythm*

If the various chronological, quantitative, and qualitative signs of Byzantine music together comprise its expression, the concise rhythm still comes to complete and to lend a greater beauty in the translation of the hymns. As one accredits the concise rhythm is similar to a river, that runs sometimes serenely and gently, other times strongly and wildly, always, however, the rhythmical and melodical.

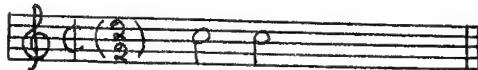
Of the above-mentioned, it is known that each character of quantity is performed in one beat ( $\text{—} = 1$ ,  $\text{—} = 1$ ,  $\rightarrow = 1$ ) and that this one beat is a chronological unit, by which the rhythm of Byzantine music is measured. As we have already said, this rhythm is called single, the more important types are the disimos, the trisimos, and the tetrasimos. From this singly rhythm came the con-

cise, through the abridgement of two single beats into one, i.e., through the abridgement of two single movements into one movement (  equal one beat). Thus the chromical unit, through which the concise rhythm is measured is one, but in one movement two characters will be performed.

This rhythm which is mainly used in the slow melodies, adds to them a special elegance and pleasing rhythmical tone.

As in the single rhythm thus also in the concise rhythm, there are three major feet, the tetrasimos, exasimos, and the octasimos, which are derived from their correspondents in the single rhythm.

- a) Tetrasimos concise rhythm, This is derived from the abridgement of two metres of a simple disimos into one. It is noted by the number 4 and is performed in two movements as the simple movement. The corresponding metre in European music is  or 2/2. Example:



- b) Exasimos concise rhythm. This comes from the abridgement of three metres of the simple disimos, is noted by the number 6 and is performed in three movements, as the simple trisimos. The corresponding metre in European music is 3/2. Example:



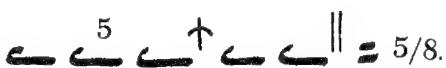
- c) Octasimos concise rhythm. This is derived from the abridgement of four metres of the simple disimos, is noted by the number 8 and is performed in four movements, as the single tetrasimos. In European music the corresponding metre is 4/2. Example:



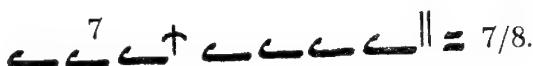
Except for these three more important concise rhythms, there are yet another three, which comprise the exception of the major ones. They are:

- a) The pentasimos concise rhythm. This comes from the abridgement of a simple trisimos and two simple disimoi metres, is noted by the number 5 and is performed in two movements, of which the thesis contains the trisimos metre, the arsis the single disimos. In rare instance the disimos is preceded and accompanied by the trisimos. Corresponding metre in European music is 5/8.

Example:



- b) The eptasimos concise rhythm. This is derived from the abridgement of a single trisimos and two single disimoi metres. It is noted by the number 7 and is performed in three movements, as the simple trisimos with the difference that the first movement of the eptasimos contains three characters. The corresponding metre in European music is 7/8. Example:



- c) The enneasimos concise rhythm. It is derived from the abridgement of a single trisimos and three simple disimoi. It is noted by the number 9 and is performed in four movements with the difference that the first movement is larger than the rest, as it has three characters. The corresponding metre in European music is not found exactly, for 9/8 or 9/4 of European music are performed in nine movements analogous toward their rhythmical

sway. Example:

9



### *Orthography of Byzantine Music*

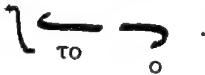
As a language has its rules concerning its orthography, so also does Byzantine music have its rules. The necessity of orthography, besides the others, results from this: in the Greek language, for example, in order to present the sound *t*, we use six ways, i.e., the consonant *t*, *v*, *n* and the diphthongs *ei*, *oi*, *ui*. These six manners of use of the six are derived from certain orthographic rules. This also happens in music; in order, for example, for us to ascend one note, we use three characters: —, , .

On the other hand, that there is an immediate relation between the Greek language and the orthography of Byzantine music is proven from the general rule, which rules it, or the orthography, according to which this orthography is based on the accent of words, i.e., on the accented rhythm. Wherever there is found an accented syllable there is also found the accent of music.

As exactly in a language, there are certain signs of accentuation, thus also in music there are four signs, by which we can accent; they are: 1) the two accent-characters of quality, the bareia and the psifiston ; and 2) the two characters of quantity, the petaste and the oligon , which, sometimes, lose their quantitative value and are used as qualitative accents.

Since the signs of accentuation are four, so the basic rules of accentuation of Byzantine music are four.

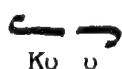
- 1) When after an accented syllable there follows a descending insignificant note<sup>28</sup>, then the bareia is placed for example:



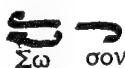
- 
27. In all the concise feet the first movement of the metre, or the thesis, is separated by one dilatation, which is cut off by a small bow ( ). The end of the metre is marked by a double dilatation ( || ).

At the end of this book we shall write certain examples of concise rhythm.

- 
28. Insignificant is a syllable, which is repeated:



- 2) When after an accented syllable there follows a descending significant note, then the petaste is placed, for example:



• 29

- 3) When after an accented syllable there follow two or more descending notes, then the psifiston is placed, even if indispensably the descents are insignificant or significant, for example:



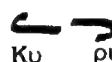
- 4) When there are two equals (ison) and of these we wish to accentuate the first, then we place below it the oligon, for example:



Below we have added two examples of hymns for the application of the four rules of orthography.

59.

29. Significant is a syllable which changes:



60. π η

Τω πα θει Σου Χριστε παθων ε λευ θερω θη  
To pathi Su Christe pathon e lef thero thi

μεν και τη αν να στα σει Σου εκ φθο ρας ε λυτ  
men ke ti a na sta si Su ek fthoras e lith

ρω θη μεν Κυ ρι ε δο ο ξα α Σου  
ro thi men Ki ri e tho o xa a Si

Observation: In the first example of the 59th exercise we have for application of the rules of orthography the following:

- in the first line and on the syllable και we applied the second rule of orthography, or we place a petaste for there follows after the accented syllable a significant syllable ἐν (δοξο...).
- Likewise in the first line and on the syllable τὲ (ρων) we applied the third orthographic rule, according to which after an accented syllable there follow three descending notes, thus we use a psifiston. We have a similar instance on the second line and on the word τῶν (Σερφιμ).
- In the second line and on the word λό(γον) we applied the first rule, for after the accented syllable λό there follows an insignificant syllable. thus we use the bareia.
- Finally, in the last line we applied the second rule on the word Θεοτόκον and applied the third rule on the word Σὲ and μεγαλύνομεν.

In the second example of the 60th exercise we, likewise, applied the orthographical rules:

- in the first line and on the words Χριστὲ and πα-θῶν we applied the second orthographic rule, using the petaste, for there follows a significant note. This also happens in the word και (τῇ ἀναστάσει Σου).
- In the second line as well as the third on the words

Δναστάσει, φθορᾶς, ἐλυτρώθημεν, Κύριε  
we applied the third orthographical rule, using the psi-  
fiston.

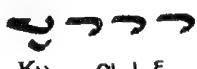
These four basic rules of orthography also have their exceptions, as exactly happens in a language. Thus, we have the following three exceptions of the basic rules of orthography:

- 1) When after the accented syllable there follow two descending notes with a gorgon, then the psifiston is not placed, but the petaste, for example:



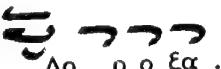
Εν δο ο ο ξως .

- 2) a) When the accented syllable has a clasma and with it follow two or more descending notes, then the psifiston is not placed, but the petaste, for example:



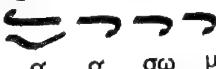
Ku pl ε

or



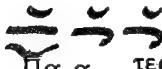
Δο ο ο ξα .

When, however, the accented syllable does not have a clasma, then the basic rule of orthography is applied, placing a psifiston



α σ σω μεν .

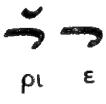
- b) When after the accented syllable all the descents have clasma, then the psifiston is placed, for example:



Πα α τερ . Likewise, when the two first descending notes have clasma, the psifiston is placed still in the script



Ku u



pl ε



Σω ω σον .

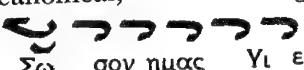
- 3) When after a final ascent there is a continuous descent with apostrophoi and there is by couples the same syllable, then before each couple the bareia is placed, for example:



example:

. When, how-

ever, the syllables are uncanonical, then nothing is placed, for example:

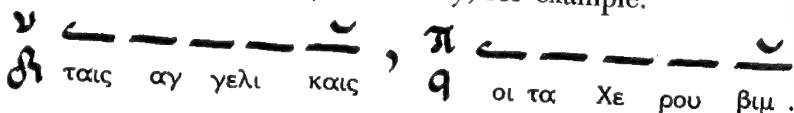


Σω σον ημας

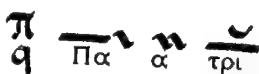
γι ε

Likewise, in orthography recitation of the notes is also taken into consideration, which have their own value. In order to ascend on note, we must judge, when we will use the oligon, the kentimata, and the petaste. This is examined from the manner of recitation of each note. Thusly:

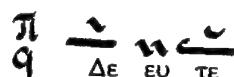
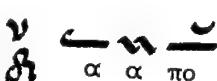
- a) We use the oligon, when ascending continuously we change syllable, when the note of the oligon is pronounced separately and lively, for example:



- b) We use the kentimata, when ascending we do not change the syllable, but repeat the vowel of the same syllable; the note of the kentimata is recited meekly, for example:



. When after the kentimata an ascent or equality follows, then the kentimata are placed on a separate line, for example:



. When, however, after the kentimata a descent follows, then these are placed above the oligon, for example: . When in script , then the psifiston works on the kentimata.

When before the kentimata with a gorgon an apostrophos is found and another apostrophos follows, then the apostrophos before the kentimata and the kentimata are placed above the oligon, for example:

When the kentimata are found above or below the oligon with a gorgon, then the gorgon always belongs to the kentimata, for example: , or .

When the characters have a gorgon, then the oligon is placed instead of the kentimata, for example:



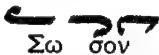
- c) We use the petaste when after it there follows a descent according to what has been mentioned above concerning the rules of accentuation.

In order to descend two notes continuously with a gorgon we have three methods of script:

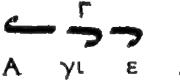
- a) The hypopore is placed, when a repetition of the same syllable takes place and in a double descent, for example:



- b) The continuous elaphron is placed when there is a change of the syllable in the second descent, for example:



- c) Two apostrophoi are placed, when the second descending notes (apostrophoi) have the same syllable, for example:



## CHAPTER VI

### *Relationship of Byzantine Music to European Music*

There is an immediate relationship between Byzantine music and European music in most of their melodies. The melodies of Byzantine music, which belong to the chromatic tones (Second, Second Plagal), where the relation and transportation of the hymns comes from an approximation, because of the difference that is found among their interval spaces, constitute an exception.

### *Manner of Transportation of Melodies*

Toward a successful transportation of melodies from Byzantine to European musical notation we must know:

- the correspondent of notes of a music toward another,
- the rhythmical correspondents of characters of quantity and of time of Byzantine music toward comparison to

the characters of European,

c) the correspondent of scales of the tones of Byzantine music to the scales of European music.

1) Correspondents of notes

Νη	corresponds to Do
Πα	corresponds to Re
Βου	corresponds to Mi
Γα	corresponds to Fa
Δι	corresponds to Sol
Κε	corresponds to La
Ζω	corresponds to Ti
Νη	corresponds to Do

2) Rhythmical correspondents

	=	
	=	
	=	
	=	
	=	
	=	
	=	
	=	
	=	
	=	
	=	

3. The correspondent of scales is examined by the families and tones.

### A) *Diatonic Family*

#### *First Tone*

The First Tone is transferred to the scale Re classon of European music, without the seventh character receiving a sharp, i.e., Do as happens in European music; thus the high interval Do-Re is a tone and not a half-tone. Also when its melody or phrase only reaches Ζω (Ti) and returns, then Ti is always flattened, as exactly happens to all the Ζω, which belong to the diatonic tones.

#### *Example of Transformation First Tone*

Ἁγιος η πα

π 1 3 π 1 3 π 1  
q En to thli ve sthe me i sa ku son mu ton

δυ νων ων κυ ρι ε Σοι κρα ζω π  
othe no on Ki ri e Si kra zo

The musical notation consists of two staves. The top staff uses a soprano C-clef, a common time signature, and a key signature of one sharp (F#). It shows a melody starting on G (Re), moving through A (Mi), B (Fa), C (Do), D (Re), E (Mi), F# (Fa), and back to G (Re). The bottom staff uses a soprano C-clef, a common time signature, and a key signature of one sharp (F#). It shows a similar melody but includes rests and different note heads, indicating a more rhythmic variation of the same melodic line.

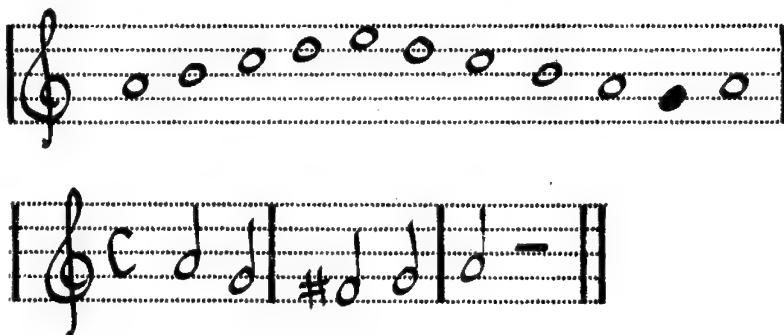
As is evident from the above:

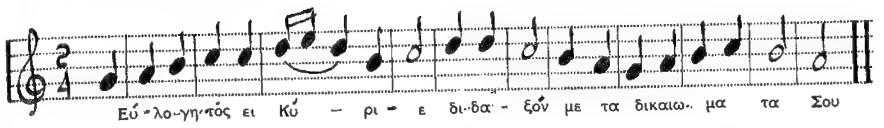
- a) the rhythmical subdivision is brought about with the basic disimos rhythm, toward a greater ease;
- b) when, because of accentuation, there are exceptions, then this is noted (for example: 3/4);
- c) returning to the initial rhythm, we note this (for example: 2/4);
- d) all the syllables of the words are separated by a dash (for example      Kú-ρι-ε    );
- e) when in a syllable the same vowel in two or more notes corresponds, then a small dash is placed and not the same vowel, as happens in Byzantine music;
- f) the words are accented oppositely as in Byzantine music;
- g) the rhythmical subdivision can become with the base the tetrasimos rhythm, when the disimoi and trisimoi will constitute the exceptions.

*Example of Transportation of the First Plagal*

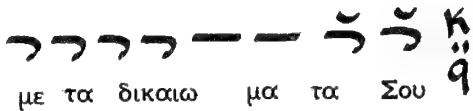
This tone, as we know, uses two scales, Πα, for the stichirarica and Papadica melodies, and Κε for the eirmologica. For the first melodies it is transposed into the elasson scale of Re, without Do becoming heightened; also Ti ( Ζω ) is sometimes natural, sometimes flattened. When Ti is natural, the Fa will be sharped; when Ti is flattened, the Fa will be natural, as exactly happens in Byzantine music, where Ζω of this tone influences Γα .

For the second melodies (eirmologica) it is transposed into an elasson scale of La; it works in the high tetrachord La-Re. Usually these eirmologica melodies are extended to Mi ( Βου ). When the melody descends to Fa, then Fa is flattened.





$\hat{\pi} \ddot{q}$   $\frac{\zeta}{κε}$



### *Example of Transportation of the Fourth Tone*

We know that the Fourth Tone has three bases, accordingly to which it is transposed into European music.

- 1) The Papadica melodies of this tone have the base Δι (Hagia) and work in the high tetrachord Δι-Ηη . Likewise, the correspondent transportation will be Sol = Δι and Sol-Do = Δι-Ηη , with Fa attracted by a sharp from Sol, as exactly happens in Byzantine music.
- 2) The stichirarica melodies of the Fourth Tone have as a base Πα . Hence, some attention is needed, for most times the note Βου (Mi) governs, when the harmonic feeling places the ear in the meizon chord Do-Mi-Sol, which is a chord of a natural tonical of the meizon scale Do.

Thus their base Πα is transposed to Re, where there is use for only natural notes, without having corresponding scale in European music. During the rule of Πα the tetrachord Πα-Δι dominates, of which the correspondent in European is Re-Sol, when the tonical note is Re.

- 3) The eirmologica melodies have as a base Βου (Mi), these also composed of only natural notes. Sometimes, as was exactly printed in the theory of eirmological melo-

dies of the Fourth Tone, we can use a sharp on the notes Re and Fa, which represents the attractions of  $\Pi\alpha$  to  $\text{Bou}$  and  $\Gamma\alpha$  to  $\Delta\epsilon$ .

Papadica

High tetrachord Δι-Νη or Sol-Do. Apichima Hagia.

Stichirarica

### Base Pg or Re

### Base Bou or Mi

Eirmologica

### Usual extent of the Melody

## Use of the attractions

○ # ○ ○ □ ○ ○ ○ # ○

## Examples

אָמֵן

**β** Εκ νε ο τη τος μου πολλα πο λε μει  
**χ** Ek ne o ti tos mu pol la po le mi

מְפָאָתִיְהַלְּאָתֵףְוֹסְעָתְלָאָבְקָעָתְ|  
 mu pa a thi al af tos an ti la vu ke

<sup>3</sup> σω σον Σω τηρ μου  
so son So tir mu

Εκ νεώς της μου πολλαχτού λειτουργίας

### *Example of Transportation of the Fourth Plagal*

This tone, we know, has two bases and two systems. The first system is the diapason or entire scale, where it has as a base Νη or Do; and the second the triphone, where it has Γα or Fa. Of these the diapason is transposed into the meizon diatonic scale of Do, the triphone is transposed into the meizon scale of Fa which has, as is already known, an armed flat on the note Ti.

Example A (Diapason)

**Top System (Diapason):**

π ḡ η

Δο ο ξα Σοι τω δειξαντι το φως δο ξα εν υ

ψι ι στοις θεωδη και ε πι γης ει ρη η η νη

εν αν θρωποις ευ δο κι α

**Bottom System (Diapason):**

2/4

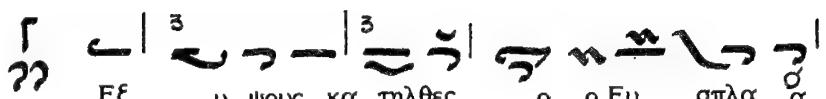
Δο - ξα Σοι τω δει - ξαν - τι το φως δό - ξα εν δ - ψι -

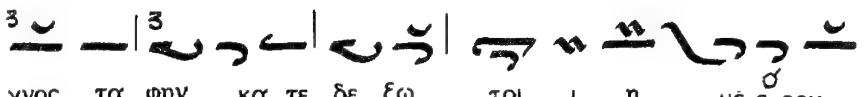
στοις θε - δη και ε - πι γης ει - ρη - νη έν διν - θρωποις ευ - δο

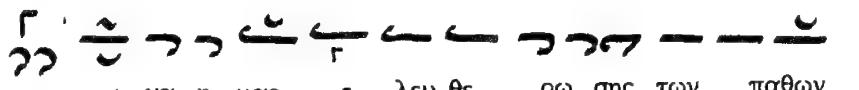
κι - ι - α

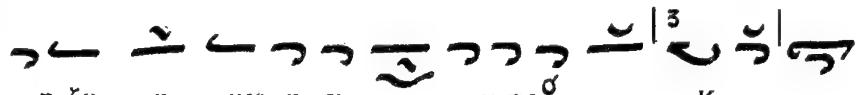
Example B (Triphone)



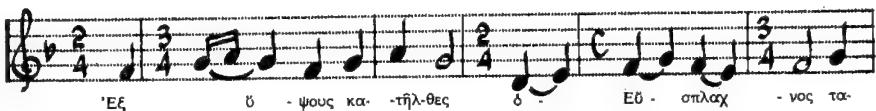

  
 Εξ υψους κα τηλθες ο ο Eu σπλα α  
 Ex i psous ka til thes o o ef spla a


  
 χνος τα φην κα τε δε ξω τρι ι η με ε ρον  
 hnos ta fin ka te the xo tri i i me e ron


  
 ι να η μας ε λευ θε ρω σης των παθων  
 e na i mas e lef the ro sis ton pa thou


  
 η ζω η και η α να στα σις η μων Ku ρι ε  
 i zo i ke i a na sta sis i mon Ki ri e


  
 ε δο ξα α Σοι  
 e tho xa a Si





### B) Chromatic Family

#### *Second Tone*

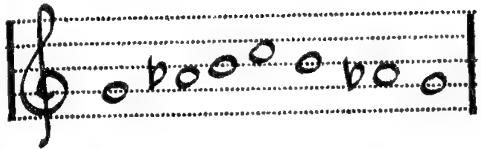
As is already known, this tone has the base Δι. It works in the high tetrachord Δι-Νη, of which the note Κε is lowered by a flat. Its transportation into European music will be in the tetrachord Sol-Do with the note La flattened.

The flat, however, of La is not given wholly, for the corresponding sign is not found in European music, where the La flat is by two moria lower than the correspondent of Κε of Byzantine music. Accordingly to the immense theory of the Second Tone, when we descend to the lower tetrachord and to Πα or Re, then Re is natural; if we descend to Νη or Do, then Re is flattened.

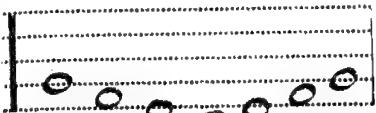
#### *Second Plagal Tone*

We know that it has two scales, the clearly chromatic and the mixed. In the chromatic it is transposed to Πα or Re, which is neither a meizon nor an elasson, but has its own report using two sharps on the notes Fa and Do and two flats on the notes Ti and Mi thus forming two 1/3 tones Mib and Fa♯; and Tib and Do♯. Thus, the chromatic scale is transposed thusly: *Second Tone*

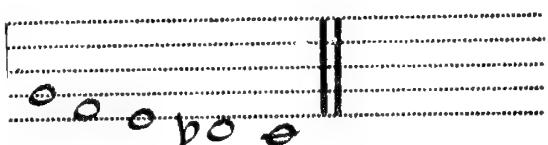
Chromatic Tetrachord ( Δι - Νη or Sol-Do)



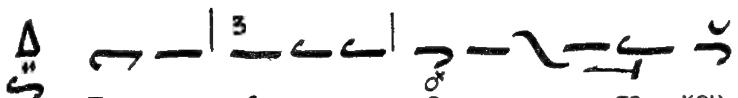
Diatonic descent (Re natural)



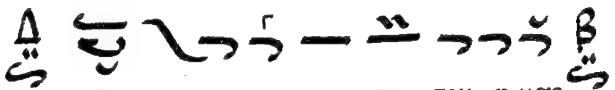
Chromatic descent (Re flattened)



Example



Ταῖς πρεσ θει αις της θε ο το κου  
Tes pres vi es tis The o to kou

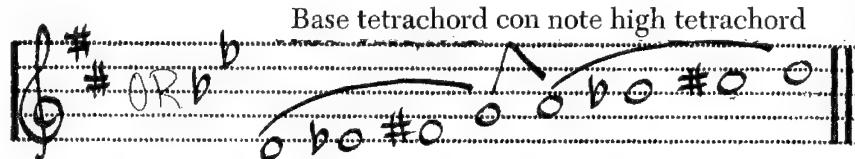


Σω τε ε ερ σω σον η μας  
So te e er so son i mas.

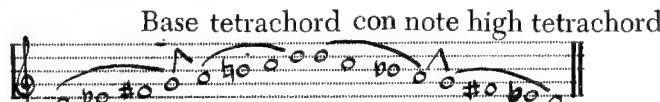
Ταῖς Πρεσ - θει αις της θε - ο το δ - κου Σω . τερ -

α ω - σον η - μας

## Second Plagal Tone



When the mixed scale is used then it is transferred thusly:



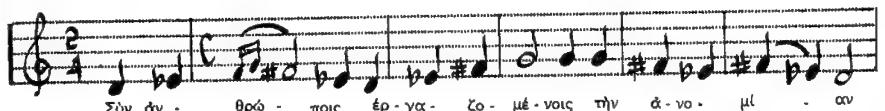
Example



Συν αν θρώ ποις ερ γα ζο με νοις την α νο  
Sin an thro pis er ga zo me nis tin a no

μι ι αν και ου μη συν δυ α σω με  
mi i an ke ou mi sin di a so me

τα των εκ λε κτων αυ των  
ta ton ek le cton af ton



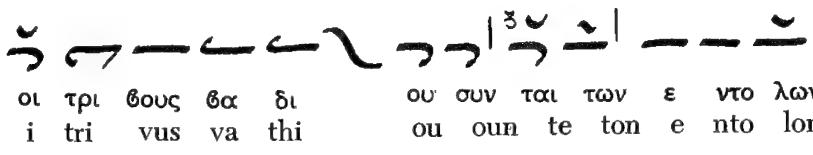
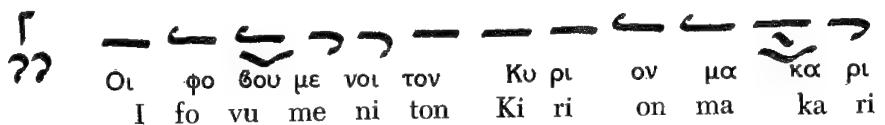
### C) Enharmonic Family

#### Third Tone

As is known this tone has Γα as its base. It will be transposed into the meizon scale, Fa, having an armed flat on the note Ti. When it leaves the main tetrachord of Γα - Ζω flattened, then it becomes diatonic, placed on Ti a refutation.

Example

Γα





φα γον ται ζω η ραν γαρ παγ καρ πιαν  
fa gon te zo i ran gar pa nkar pi-an

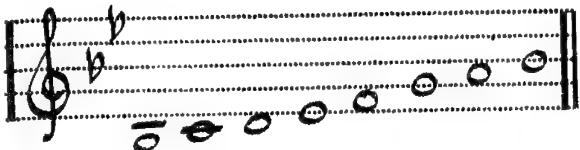
### *Barys Tone (Grave Tone)*

We know, that the Grave Tone has three bases. Thus it will be transposed in three scales:

- 1) when it has the base  $\Gamma\alpha$ , then it will be transposed into the meizōn scale of Fa, as also is the Third Tone;
  - 2) When it has the base  $Z\omega$  natural (Grave diatonic), then it will be transposed into a special scale, which will have as its base Ti, being natural and the notes Fa and La raised by sharps (attractions):

A blank musical staff consisting of a treble clef at the top, followed by five horizontal dotted lines for writing musical notes.

- 3) when it has the base  $Z\omega^\flat$  (Grave enharmonic from  $Z\omega^\flat$ ) then it will be transposed in the meizon scale of  $Z\omega^\flat$ , which has two armed flats:



Example A

Γα

Την αιχ μαλ ω σι αν Σι ων εκ πλα νης ε  
Tin aich mal o si an Si on ek pla nis e

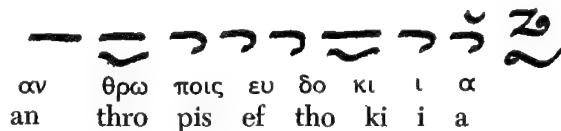
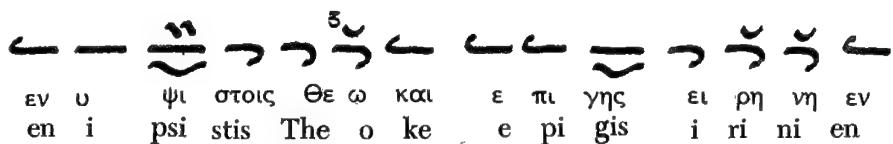
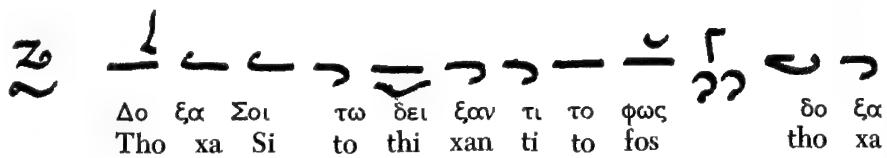
πι στρε ε ψας και με Σω τηρ ζω ω σον ε ξαι  
pi stre e psas ka me So tir zo o son e xe

ρων δου λο πα θει ει ας.  
ron thou lo pa this i as

Την αιχ μαλ ω - αι - αν Σι - ων εκ πλα νης ει πι στρε-  
- ε - ψας - και με Σω τηρ ζω - ω σον - ει ξαι - ρων δου λο πα  
θει ει ας

Example B (Grave diatonic)

Ζω



Δόξα Σοι τῷ δει ξαντι τῷ φῶς δόξα - Εν ο ψι.

στοις Θεῷ φέρεται επὶ γῆς εἰρηνῇ εν θρώποις εὖ δοκίμια

κίμηται

Example C (Grave Enharmonic) Concise Rhythm

Σω Σω Σω Σω Σω

Δο ξα α ρ α Σοι οι τω δει ει  
Tho xa a a Si i to thi ei

ξα αν τι ι το ο φως ως δο ξα α εν  
xa an ti i to o fo os tho xa a en

υ ψι ι στοις οις Θε ε ε ω  
i psi i stis is The e e o

και ε πι γης ει ρη η η η νη Δ ι  
ke e pi gis i ri i i i ni en

αν θρω πι οις ευ ευ δο κι ι ι ι  
an thro pi is e ef tho ki i i i

α α  
a a



## SUPPLEMENT

### Diverse Exercises

1 Υ ρι Σε u μνου μεν Χ Σε ε ευ λο γου μεν  
Se i mnu men Se e ev lo gou men


  
 Σοι ευ χα ρι στου μεν Κυ ρι ε ρι και δε  
 Si ef ha ri stu men Ki ri e      ke the

$$2 \quad \frac{y}{x} = \frac{\pi}{q} \quad \text{or} \quad \frac{y}{x} = \frac{b}{a}$$

۱۰۷  
لَمْ يَرِدْ لِي مُؤْمِنٌ بِهِ مُؤْمِنٌ

۱۰۸  
لَمْ يَرِدْ لِي مُؤْمِنٌ بِهِ مُؤْمِنٌ

۱۰۹  
لَمْ يَرِدْ لِي مُؤْمِنٌ بِهِ مُؤْمِنٌ

۱۱۰  
لَمْ يَرِدْ لِي مُؤْمِنٌ بِهِ مُؤْمِنٌ

۱۱۱  
۳ لَمْ يَرِدْ لِي مُؤْمِنٌ بِهِ مُؤْمِنٌ

۱۱۲  
لَمْ يَرِدْ لِي مُؤْمِنٌ بِهِ مُؤْمِنٌ

۱۱۳  
لَمْ يَرِدْ لِي مُؤْمِنٌ بِهِ مُؤْمِنٌ

4      עֲלֵיכָם כְּבָשָׂר וְעַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה |

      לְכָל־עַדְיָה | לְכָל־עַדְיָה | לְכָל־עַדְיָה |

      אֶת־עַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה ||

5      עֲלֵיכָם כְּבָשָׂר וְעַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה |

      אֶת־עַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה |

      אֶת־עַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה ||

6      עֲלֵיכָם כְּבָשָׂר וְעַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה | אֶת־עַדְיָה |

اے اے اے اے اے اے اے

اے اے اے اے اے اے اے

اے اے اے اے اے اے اے

اے اے اے اے اے اے

7 اے اے اے اے اے اے اے

اے اے اے اے اے اے اے

اے اے اے اے اے اے اے

8      ॥ ੴ ਸਤਿਗੁਰ ॥

॥ ਪ੍ਰਾਪਨ ਪ੍ਰਾਪਨ ॥

9      ਅਵਾਜ਼ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ

ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ ਕਾਹੀ

10     ॥ ਪ੍ਰਾਪਨ ਪ੍ਰਾਪਨ ਪ੍ਰਾਪਨ ਪ੍ਰਾਪਨ ਪ੍ਰਾਪਨ ਪ੍ਰਾਪਨ ॥

ਲੋਕ ਲੋਕ ਲੋਕ ਲੋਕ ਲੋਕ ਲੋਕ

ਲੋਕ ਲੋਕ ਲੋਕ ਲੋਕ ਲੋਕ ਲੋਕ

לְכַלְלָה ||

11      גַּג —————— | כַּכְלָה |

— — — — לְכַלְלָה |

לְכַלְלָה ||

*Chromatic Exercises*

Second Tone (     Θ   )

12      אֶלְלָה —————— | כַּכְלָה |

לְלָה כַּלְלָה |

تے یہ اور قسم

*Plagal Second Tone* ( ♪ )

13       $\frac{\pi}{q}$      $\leftarrow$   $\text{ceil} \leftarrow$   $\leftarrow$

—כְּרָבִי—<sup>אַ</sup>לְרָבִי—<sup>אַ</sup>כָּרְבִּי—<sup>אַ</sup>כָּרְבִּי

# אֶלְכָה אַרְכָּה בְּנֵי

The exercises of the enharmonic family are similar to those of the diatonic family, adding the phthora  $\wp$  on  $\zeta\omega$  and sometimes on  $\Gamma\alpha$ , which it wants flattened.

*Translation of Hymns*

38. From my youth up many passions have warred against me.  
But do thou succour and save me, O my Saviour.
41. Hail, holy Sion, Mother of the Churches, the dwelling of God;  
you who accepted the first forgiveness of sins through the Res-  
urrection.
43. Glory to Thee, Who hast shown forth the light.
45. O Lord and King, heavenly God, Father Almighty; O Lord,  
the only-begotten Son Jesus Christ, and Holy Spirit.
47. O Lord, Thou hast been a refuge of us from generation to  
generation.
49. Accept our prayer, Thou that sittest on the right hand of the  
Father, and have mercy on us.
59. Thee that art more honorable than the Cherubim, and incom-  
parably more gloriousthan the Seraphim, who without spot of sin  
didst bear God the Word; Thee, verily the Mother of God, we  
magnify.
60. With the suffering, O Christ, Thou has freed us from our suf-  
ferings and with Thy Ressurection Thou hast freed us from de-  
struction. Lord, glory to Thee.
96. In my sorrow, I sing to Thee, O my Saviour as David did;  
save my soul from sin.
98. Blessed art Thou, O Lord, teach my Thy statutes.
100. From my youth many things have fought me with passion;  
but understand him, and save me my Saviour.
102. From high the compassionate one descended, He received  
the tomb for three days, in order to free us from our passions. Our  
life and ressurection, O Lord, glory to Thee.
104. By the intercessions of the Mother of God, O Saviour, save  
us.
105. With men who commit sin, and do not combine me with  
their chosen ones.
106. Those who fear the Lord, they shall walk through sin  
blessed, and they shall obey Thy commandments, a living fruitful-  
ness.

106. Those who fear the Lord, they shall walk through sin blessed, and they shall obey Thy commandments, a living fruitfulness.

107. You, Who has returned from error the bondage of Sion, O Saviour, also watch over me, freeing me from the slavery of passions.

111. We praise Thee, we bless Thee, we give thanks to Thee, O Lord, and we pray to Thee, O our God.

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